

SEQUENCE LISTING

<110> Fishman, Mark C.

<120> Methods for Diagnosing and Treating
Heart Disease

<130> 00786/381002

<150> US 60/175,787

<151> 2000-01-12

<160> 11

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 81940

<212> DNA

<213> Homo sapiens

<400> 1

attagaggct	caccgattca	tgtcggagat	ggtcagaaaa	accaaactctc	cataggacgt	60
cgtttcagaa	gcaaccttgg	gcttagtccc	acccttttta	ggcactcttg	agaaatcaga	120
gtgcctagaa	agatgacaac	tcaagcaccg	acgttttacgc	agccgttaca	aagcgttggtg	180
gtactggagg	gtagtaccgc	aacctttgag	gtcacatta	gtggttttcc	agttcctgag	240
gtgagctggt	ttagggatgg	ccagggtgatt	tccacttcca	ctctgcccgg	cgtgcagatc	300
tccttttagcg	atggccgcgc	taaactgacg	atccccgccg	tgactaaagc	caacagtggga	360
cgatattccc	tgaaagccac	caatggatct	ggacaagcga	ctagtactgc	tgagcttctc	420
gtgaaaagctg	agacagcacc	acccaacttc	gttcaacgac	tgacagagcat	gaccgtgaga	480
caaggaagcc	aagtgagact	ccaagtgaga	gtgactggaa	tccttacacc	tgtggtgaag	540
ttctaccggg	atggagccga	aatccagagc	tcctttgatt	tccaaatttc	acaagaaggc	600
gacctctaca	gcttactgat	tgcagaagca	taccctgagg	actcagggac	ctattcagta	660
aatgccacca	atagcggttg	aagagctact	tgcactgctg	aattactggt	tcaaggtgaa	720
gaagaagtac	ctgctaaaaa	gacaaagaca	attgtttcga	ctgctcagat	ctcagaatca	780
agacaaaacc	gaattgaaaa	gaagattgaa	gcccaacttg	atgccagatc	aattgcaaca	840
gttgagatgg	tcatagatgg	tgccgctggg	caacagctgc	cacataaaac	acctcccagg	900
attcctccga	agccaaagtc	aagatcccca	acaccaccgt	ctattgctgc	caaagcacag	960
ctggctcggc	agcagtcccc	atcgcccata	agacactccc	cttccccggg	cagacacgtg	1020
cgggcaccga	ccccatctcc	ggtcagggtcc	gtgtctccag	cagcaagaat	ctccacatcc	1080
cccatcaggt	ctgttaggtc	tccattgctc	atgcgtaaga	ctcaggcatc	caccgtggcc	1140
acaggtcctg	aagtgcctcc	cccttggaag	caagagggct	acgtggcctc	ctcatctgag	1200
gctgagatga	gagagacaac	gctgacaacc	tctactcaga	tcaggacaga	agagagatgg	1260
gaagggagat	acggtgtcca	ggagcaagtg	accatcagtg	gtgctgcggg	tgctgccgcc	1320
agtgtgtcgg	ccagtgtctag	ctacgcagca	gaggctgttg	ccactggtgc	taaagaggtg	1380
aaacaagatg	ctgacaaaag	tgcagctgtt	gcgactgttg	ttgctgccgt	tgatatggcc	1440
agagtgtgag	aaccagtgtg	cagcgtgtga	gagcagactg	ctcagaggac	aaccacgact	1500
gctgtgcaca	tccaacctgc	tcaagaacag	gtaagaaagg	aagcggagaa	gactgtgtga	1560
actaaggtag	tagtggccgc	cgataaaagc	aaggaacaag	aattaaaaatc	aagaacaaaa	1620
gaaataatta	ccacaaagca	agagcagatg	cacgtaactc	atgagcagat	aagaaaagaa	1680
actgaaaaaa	catttgtacc	aaaggtagta	atttccgcag	ctaaagccaa	agaacaagaa	1740
actagaattd	ctgaagaaat	tactaagaaa	cagaaacaag	taactcaaga	agcaataatg	1800
aaggaaacta	ggaaaacagt	tgtacctaaa	gtcatagttd	ccacacccaa	agtcaaagaa	1860
caagatttag	tatcaagagg	tagagaaggc	attactacca	aaagagaaca	agtgcaataa	1920
actcaggaga	agatgagaaa	ggaagccgag	aaaactgcct	tgtctacaat	agcagttgct	1980
actgctaaa	ccaaagaaca	agaaacaata	ctgagaacta	gagaaactat	ggctactaga	2040
caagaacaaa	tccaagttac	ccatggaaa	gtggacgttg	gaaaaaaggc	tgaagctgta	2100

gcaacagttg	ttgctgcagt	agaccaggcc	cgagtcagag	agcccagaga	gcctgggcat	2160
cttgaagaat	cctatgctca	gcagaccact	ttggagtacg	gatataagga	acgcatttcc	2220
gccgcaaagg	tagctgagcc	tccccacgt	ccagcctcag	aacccacgt	tgtccctaaa	2280
gcagtaagc	ctagagtaat	ccaggctcct	tctgagactc	atatcaaac	tactgatcaa	2340
aagggaaatgc	acatatcatc	acagatcaag	aaaactacag	atctaacaac	ggaaagatta	2400
gtccatgtgg	ataaacgccc	ccgcacagct	agccctcact	ttactgtttc	aaaaatttct	2460
gttcctaaga	cagaacatgg	atatgaggca	tcaatagccg	gtagtgtat	tgccacatta	2520
caaaaagagt	tgtagccac	atcttctgct	cagaagatca	ccaaatcgg	gaaggctcct	2580
actgtgaagc	ccagtgagac	tagagtaagg	gcagagccca	cacccttgcc	acagttcccc	2640
ttcgctgaca	caccagatac	ttacaagagt	gaagctggcg	ttgaggtgaa	aaaggaagta	2700
ggggtgagca	tactggcac	caccgtccgt	gaagagcgct	ttgaagtact	gcacggacgc	2760
gaagccaagg	taacagaaac	agcaagagta	ccagcacctg	ttgaaattcc	tgttactcca	2820
ccaactttgg	tctcgggctt	aaaaaatgtg	actgtcatag	aaggtgaatc	tgtcaccttg	2880
gagtgccaca	tctctggata	cccctccc	acagtgacat	ggtacaggga	agactaccaa	2940
atcgaaagtt	ccattgactt	ccagataacc	ttccagagt	gaattgctcg	tcttatgatt	3000
cgcgaagcat	ttgcggaaga	cagcggcgca	tttacttgca	gtgctgtaaa	tgaggctgga	3060
accgtcagca	catcctgcta	tctggctgtg	caggtgtcag	aagaatttga	aaaggaaacc	3120
acagccgtga	ctgagaaatt	tactacagaa	gagaaacgct	ttgttgagtc	aagagatgtg	3180
ggtatgactg	atactagcct	cacagaggaa	caagcagggc	ctggagaacc	tgccgcgcct	3240
tactttatta	caaaaccagt	ggtccagaaa	ctggtggaag	gtgggagcgt	ggtgtttgga	3300
tgccaagttg	gcggcaaccc	aaagcccat	gtatactgga	aaaaatctgg	tgttccctcta	3360
accactggat	acagatacaa	agtgagttac	aacaaacaaa	ccggtgaatg	caagctgggtg	3420
atcttctatga	cttttgctga	tgatgctgga	gaatacacta	ttgttggttcg	caataagcat	3480
ggagaaactt	ctgcatctgc	ttccttgctt	gaagaagctg	attatgagtt	actgatgaag	3540
tcccagcaag	aaatgcttta	tcagacacaa	gtgactgcat	ttgttcaaga	acctgaagtt	3600
ggagaaacag	cacctggatt	tgtatactct	gagtatgaaa	aagagtatga	aaaagaacaa	3660
gccttaatta	ggaagaaaat	ggccaaagat	actgtagtgg	tcagaactta	tgtagaagat	3720
caggaattcc	atatttcttc	ctttgaagag	agacttatta	aagaaattga	atatagaata	3780
ataaagacta	cattagaaga	acttcttgaa	gaagatggag	aagaaaagat	ggcagttgac	3840
atctctgaat	ctgaagctgt	tgaatcagga	tttgatttaa	gaatcaagaa	ttatagaatt	3900
cttgagggga	tgggtgtcac	ttttcattgc	aagatgtctg	gatatccatt	accaaagatt	3960
gcttggtaca	aagatggcaa	gcgcatcaaa	catggagaaa	gataccaaat	ggactttcta	4020
caagatggca	gagctagctc	gcgtatacct	gttggtcttc	cagaagatga	aggaatctac	4080
actgcatttg	ccagcaatat	taaaggaaat	gcaatttgct	cagggaaatt	gtatgtggag	4140
cctgtctgcac	cacttggagc	tccgacttac	attcccacac	tagagccagt	gagcagaatc	4200
agatctctct	ctccacgttc	agtgagcagg	tctcctatac	gcatgtctcc	tgacaggatg	4260
tcacctgcaa	ggatgtctcc	tgacggatg	tcccctgcaa	gaatgtcccc	tggacgtagg	4320
ctggaggaga	cagatgagtc	acaacttgag	agactatata	aaccagtctt	tgtgttaaaa	4380
cctgtttctt	tcaaatgttt	agaagggcaa	actgccagat	ttgacttaaa	ggttggttgt	4440
agacctatgc	cagagacgtt	ctgggttcat	gatggccagc	aaattgtcaa	tgactatacc	4500
cataaagtag	tcattaaaga	agatggtact	caatcactaa	ttattgtccc	tgccacaccc	4560
agtgattctg	gggaatggac	tgtggttgcc	caaaacaggg	caggcagatc	ttcaatttca	4620
gtgattttta	ctgtggaagc	tgtggaacat	caggtaaaac	cgatgtttgt	agaaaaactg	4680
aaaaatgtca	atataaagga	aggttcccga	cttgaaatga	aagtcagagc	tacgggtaac	4740
cccaaccctg	acattgtatg	gttgaaaaac	agtgcacatc	ttgtgcctca	taaatatccc	4800
aaaatcagaa	ttgaagggaac	caaggagaaa	gctgccctta	aaatcgattc	cactgtcagc	4860
caagattctg	cctggtatac	tgcgactgct	attaataaag	ctggcagaga	cactacaaga	4920
tgcaaagtaa	atgttgaagt	tgagtttgca	gagcctgagc	cagagagaaa	gttaatcatc	4980
ccacggggga	catatagagc	aaaggagatt	gcagccccag	aactggagcc	cctccatttg	5040
cgatatggcc	aagagcaatg	ggaagaaggt	gatctctatg	acaaagagaa	acaacagaaa	5100
ccatttttca	agaaaaaact	cacttcttta	agacttaagc	gctttgggcc	tgccactttt	5160
gaatgcaggc	taacacccat	tagtgaccca	acgatgggtg	tggagtggct	ccatgatgga	5220
aagccacttg	aagcagccaa	caggctccgt	atgatcaatg	aatttgggta	ctgcagcctt	5280
gattatggcg	ttgcatattc	tagagacagt	ggatcatta	cttgagagc	cactaacaac	5340
tatggaacag	atcacacatc	tgctaccctt	attgttaaa	atgagaaaag	tcttggtgga	5400
gaatcccaat	tgctgaggg	gaggaaaggc	ttacagagaa	ttgaagaatt	agagagaatg	5460
gctcatgaag	gtgcacttac	aggtgtaaca	acagatcaga	aagaaaagca	aaagccagac	5520
attgtcttgt	accagagacc	agttagagta	cttgaagggg	agactgcaag	gttccgctgc	5580

agggtaacag	gctaccctca	gccccaaagtc	aactgggtacc	tcaatggaca	gctcatccgc	5640
aaaagcaaaa	ggttcagagt	tcgctatgat	ggatatccatt	acctggacat	cgtggactgc	5700
aaatcatatg	acacaggtga	agtgaaggctc	accgcggaaa	atcctgaagg	tgtgatatag	5760
cataaagtga	agcttgagat	tcaacagagg	gaagatttta	ggtctgtcct	taggagagct	5820
cctgaaccaa	ggcctgagtt	tcacgtacat	gaaccaggaa	agcttcagtt	tgaagtacaa	5880
aaagtggata	gacctgttga	caccactgaa	accaaagaag	ttgtgaagtt	gaaaagggct	5940
gaaagaatta	cccatgaaaa	agtgcctgaa	gagtcggaag	agctgcgcag	taaattcaag	6000
cgcagaacag	aagagggcta	ttatgaagcc	attaccgctg	tggagctcaa	gtctcgaaag	6060
aaggatgaat	cctatgagga	actcctcagg	aagacaaaag	atgaacttct	ccactggacc	6120
aaagagttaa	ctgaagagga	aaagaaagct	cttgccgaag	aaggcaaaat	cacgattcca	6180
acttttaaac	ctgacaagat	tgaactaagt	cctagtatgg	aggctccaaa	aatcttcgaa	6240
agaatccaga	gccaaacagt	gggccaagga	tctgatgcac	acttccgggt	cagagtcgtg	6300
gggaaaccag	accccgagtt	tgaatgggtac	aaaaatgggtg	tcaaaattga	acggtctgac	6360
cggatctact	ggtactggcc	cgaagacaat	gtttgtgaat	tggtcataag	agatgtgact	6420
gctgaggact	ctgccagcat	catggtaaaa	gccatcaaca	tagctggaga	aacctccagt	6480
cacgcattct	tacttgtcca	agccaagcaa	ttgatcactt	tcacacagga	attacaagat	6540
gttggttgcta	agggaaaaaga	cactatggca	acctttgaat	gtgaaacttc	agaaccattt	6600
gtcaaagtga	aatgggtataa	agatgggtatg	gaggttcatg	agggagataa	atacaggatg	6660
cactctgaca	gaaaggttca	cttctctctcc	atactgacca	ttgatacgtc	tgatgctgaa	6720
gattacagct	gtgtacttgt	ggaagatgaa	aatgtcaaaa	cgactgctaa	acttatttgt	6780
gaaggtgcag	ttgttgagtt	tgtgaaagaa	cttcaggaca	tagaagttcc	agaatcatat	6840
tcaggagaat	tagagtgcac	tgtatcccca	gaaaatatag	aaggaaaatg	gtatcataat	6900
gatgtggagc	ttaaatccaa	tggcaaatat	acaattacat	ctcgtcgtgg	acgtcagaac	6960
ctcacgggtca	aggatgtaac	caaggaggac	caggggagaat	acagctttgt	catcgacggg	7020
aaaaagacaa	cctgtaaatt	aaagatgaaa	ccccgcccc	ttgctatcct	acaaggactt	7080
agtgaccaa	aagtctgtga	gggtgacatt	gttcagcttg	aagttaaagt	ctccttgga	7140
agtggtggaag	gcgtctggat	gaaagacggc	caagaagtgc	agcccagtg	cagggttcac	7200
attgtgatag	acaacaatc	tcatatgctg	ctcattgaag	acatgactaa	ggaagatgct	7260
ggaaattact	ctttccacct	tccagccctt	ggcctctcca	ccagtgggcg	tgtctctgtc	7320
tatagtgtgg	acgtgataac	acctctaaaa	gatgttaatg	tgattgaagg	caccaaggct	7380
gtgcttgaat	gtaagggtgc	agtcctctgat	gtgacttctg	ttaagtggta	cttaaatgat	7440
gaacaaatca	agcctgatga	ccgtgtacag	gccattgtga	aagggtactaa	acagcgacta	7500
gtcattaacc	gaactcatgc	ttcagacgaa	ggaccttata	agctgatagt	tggcagagtt	7560
gaaaccaact	gtaatctctc	tgtagaaaaa	attaaaaatta	tcagaggtct	tcgtgacctt	7620
acctgtacag	aaactcaaaa	tgtggtgttt	gaggttgagc	tgtccactct	tggaaattgat	7680
gtcctgtgga	attttaagga	caaggaaatc	aagcccagtt	ctaaatataa	aattgaagca	7740
catggaaaaa	tatataaatt	gacagttcta	aatatgatga	aagatgatga	aggaaaatac	7800
acatttttacg	cgggagaaaa	tatgacatct	ggaaaactta	ctgtggcagg	tggggccatc	7860
tccaagccac	tcacagatca	gaccgtagct	gaatcccagg	aagctgtgtt	tgaatgtgaa	7920
gttgccaacc	cgatttccaa	aggcgaatgg	ttgagggatg	gcaaacacct	accactgact	7980
aacaacatca	gaagtgcagc	tgtatggccac	aaaaggagac	ttatcattgc	tgccaccaa	8040
ttagatgaca	ttggagaata	tacctacaag	gtggccacct	ccaaaacatc	tgccaaactc	8100
aaagttgaag	ctgtcaaaat	taagaagact	ctgaagaacc	tcacagtgc	agaaacacag	8160
gatgctgttt	tcactgtcga	gcttacacac	cctaattgtca	aaggtgtcca	gtggatcaaa	8220
aatggagttg	tgctggaatc	caatgaaaag	tatgctatct	ctgtcaaagg	aacaattttac	8280
tctctgagga	ttaaaaactg	tgccatcgtg	gatgagctctg	tttatggctt	caggcttgga	8340
aggcttgagg	ccagtgccag	actgcacgtg	gagactgtca	agatcattaa	aaagccaaag	8400
gatgtgacag	ccttggaaaa	tgccactgtt	gcctttgaag	ttagtgtttc	ccatgacact	8460
gttccagtaa	aatgggttcca	taagagtgtg	gaaattaaagc	caagtgcaca	acacagactg	8520
gtctcagaaa	ggaaagtcca	caagctgatg	ctgcagaaca	tctccccctc	agatgctggg	8580
gaatacacag	ctgtggtcgg	gcaattggaa	tgcaaagcaa	aactgtttgt	ggagacatta	8640
catattacaa	aaacctgaa	aaatatcgag	gtgcctgaga	ccaaaactgc	ctctttttgag	8700
tgtgaggtgt	cccacttcaa	tgtcccttcc	atgtggctga	agaatggtgt	ggaaattgag	8760
atgagtgaag	agttcaagat	agttgtgcag	ggaaaactcc	atcagctgat	catcatgaac	8820
accagcacag	aggactcggc	agaatacaca	tttgtctgtg	gcaatgacca	agtcagtgcc	8880
acctgcacag	tcactccaat	catgattact	tccatgctga	aagacatcaa	cgctgaagaa	8940
aaagacacta	ttacttttga	ggtgcacgtg	aactatgaag	gcattcttta	caaattgggtta	9000
aagaatggtg	tggaaatcaa	atcaactgac	aagtgccaga	tgagaaccaa	aaagctcaca	9060

aaaacaagtt	tgcaagaaga	aatggattct	ttttcaggtt	cacagaaggt	tgaacccatt	12600
actgaaccag	aagttgaatc	taaatatctg	atctcaactg	aagaggtcag	ttattttaac	12660
gtgcaaagta	gggttaaata	tttggatgcc	acacctgtca	ctaaagggtg	tgcttcagct	12720
gttgtctctg	acgaaaaaca	agatgagagt	ctgaaaccat	cagaggaaaa	agaggagtct	12780
tcctctgaaa	gtggtactga	ggaggttgct	acagtaaaga	tacaggaagc	tgagggtggc	12840
ttaatcaaag	aggtatggccc	catgatacat	acacctttag	tggacactgt	ttctgaggaa	12900
ggtgatattg	tacacctcac	aacatccata	acaaatgcta	aagaggtgaa	ttggtatttt	12960
gagaataaac	tggtgccttc	agatgaaaag	ttcaagtgtt	tacaagatca	aaatacatat	13020
acgctagtca	tcgacaaaag	aaataccgaa	gacctatcaag	gagagtatgt	ctgtgaggcc	13080
ttgaatgaca	gcggaaaaac	agcaacttca	gccaaactca	ctgtagtaaa	aagagctgcc	13140
ccagtgatca	agaggaaaat	cgaacccctg	gaagtagcac	tgggccacct	agccaaattc	13200
acctgtgaga	tccaaagtgc	tcccaatgtc	cgggtccagt	ggtttaaacg	tggccgagaa	13260
atztatgaga	gtgacaagtg	ttctatttca	tcttcaaagt	atatctccag	ccttgaaatc	13320
ctgagaaccc	aggtggttga	ctgcggcgag	tatacatgca	aagcttccaa	tgagtattgg	13380
agtgtcagct	gtacagccac	actaactgtg	acagtgcctg	gaggtgaaaa	gaaagttcgc	13440
aaattacttc	cggaacgtaa	acctgaacca	aaggaagaag	ttgttctgaa	aagcgttcta	13500
agaaaaagac	ctgaagaaga	agaacctaaa	gtagaaccta	aaaaactaga	aaaagttaaa	13560
aaacctgcag	taccagaacc	accacctcca	aaacctgttg	aagaggttga	agtacctact	13620
gttacaataa	gggaaggaaa	gattcctgaa	ccaacaaaag	tgacctgaaat	caagccagca	13680
atacctctcc	ctgcacctga	accgaaacca	aagcccgaag	cagaagtga	aacaatcaaa	13740
ccacctctctg	tggaaacctga	accaaccccc	atcgctgccc	cagtaacagt	gccagtgggt	13800
ggaaagaaaag	cagaagccaa	agcacctaag	gaagaggtcg	ccaagccaaa	aggtcctatc	13860
aaaggtgtac	ccaaaaagac	tccttcacca	atagaagccg	aaaggagaaa	gttaaggcca	13920
ggaagtgggtg	gagagaaacc	tcctgatgaa	gccccgttca	cctaccagct	aaaggctgtg	13980
ccactgaagt	ttgtgaaaga	aatcaaaagc	atcatcttga	cagaatcaga	gttcgttggc	14040
tccttcagcaa	tccttgaatg	tttgggtctcc	ccttccactg	caattacaac	ctggatgaaa	14100
gacggtagca	atatccgtga	gagtcaccaag	cacaggttta	ttgcagatgg	taaagacaga	14160
aagctgcaca	tcattgatgt	tcaactttcc	gatgctgggtg	aatacacctg	tgttttacgt	14220
ttgggaaaca	aagaaaaagac	ctccacggct	aaacttggtg	tagaagaact	tcctgtgctg	14280
tttgtaaaaa	cactggaaga	ggaagtcaca	gtggtcaaaag	gacagccatt	gtacttgagc	14340
tgcgagttaa	acaaagagcg	tgacgtggct	tggaggaagg	atggcaagat	tggtggtggag	14400
aaacctggcc	gaattgtgcc	agggcgctatt	ggcttgatgc	gggctctgac	catcaacgat	14460
gcagatgaca	cagatgctgg	aacatacaca	gttactgtgg	aaaacgccaa	caacctggag	14520
tgttcatctt	gcgtaaaagt	agtagaagtc	attagagatt	ggctggtgaa	acctatacga	14580
gaccagcatg	tgaaccccaa	ggggacagct	atttttgcct	gtgatatagc	aaaagatact	14640
ccaaacatta	agtgtgttcaa	aggatatgat	gaaatccctg	cggaaaccaa	tgataagact	14700
gaaatactga	gagatggaaa	tcattctgtac	ctcaaaatta	agaatgctat	gccagaagat	14760
attgctgagt	atgcagtggg	aattgaagga	aaaagatacc	ctgcaaaagc	gacacttgga	14820
gagcgtgaag	ttgaactgct	taaaccaata	gaggacgtta	ccatttatga	gaaagaaaagt	14880
gcaagctttg	atgcagaaat	ctcagaggca	gacattcctg	gacaaatggg	actgaaaggg	14940
gaacttctaa	ggccctcacc	tacttgtgaa	atcaaagcag	aaggtggaaa	acgcttctta	15000
actttgcaca	aagtcaaaact	ggaccaagct	ggtgaagtc	tctaccaggc	ccttaatgca	15060
attacaactg	ccattttgac	agtaaaagaa	atcgaaactg	actttgtctg	gcccctgaag	15120
gatgtcactg	ttccagaaaag	gcgacaggct	cgattogaat	gtgtcctcac	ccgagaggca	15180
aatgttatat	ggtccaaaag	acctgatata	attaagtcac	ctgacaaatt	tgatatcatc	15240
gctgatggaa	agaaacatat	tcttgttatt	aatgattctc	aatttgatga	tgaagggtgc	15300
tatactgctg	aggtggaggg	caagaagacc	tcagctcggt	tgtttgtcac	aggtataaga	15360
ctgaaattca	tgtcacctct	tgaagatcaa	acagtaaaag	aaggtgaaac	agcaactttt	15420
gtttgtgaac	tttctcatga	aaaaatgcat	gtagtctggt	tcaaaaatga	tgccaaactc	15480
catacaagca	gaacagtact	catctcttct	gagggcaaga	ctcacaattt	ggaaatgaaa	15540
gaagtgcacat	tggatgatata	atctcagata	aaagctcaag	tcaaggagct	gagctccaca	15600
gcacagctga	aggtcttaga	ggccgatccc	tacttcaactg	tgaaattaca	tgacaaaact	15660
gcagtggaga	aggtatgagat	tactttgaag	tgtgaagtga	gcaaagatgt	accagtgaaa	15720
tggttcaaag	atggtgaaga	gattgtccct	tcacccaaat	attctatcaa	ggcagatggc	15780
ctgcgccgca	tcttaaaaaat	caaaaaggcg	gaccttaag	ataaaggcga	atatgtgtgt	15840
gactgtggga	cagacaagac	caaggcaaat	gttactgttg	aggctcgact	aatagaagtg	15900
gaaaagcctc	gttacggagt	agaggtgttt	gttcgtgaaa	cagcccactt	tgaaattgaa	15960
ctttctgaac	ctgatgttca	cggccagtgg	aagctgaaag	gacagccttt	gacagcttcc	16020

cctgactgtg	aaatcattga	ggatggaaa	aagcatatcc	tgatccttca	taactgtcag	16080
ctgggtatga	caggagaggt	ttccttccag	gctgctaata	ccaaatctgc	agccaatctg	16140
aaagtgaag	aattgcctct	tatcttcatc	acacctctca	gtgatgttaa	agtcttctgag	16200
aaagatgagg	ctaagtttga	gtgtgaagta	tccagggagc	ccaaaacatt	ccgttggcta	16260
aaaggaaccc	aggaaatcac	aggtgatgac	agatttgagc	ttataaagga	tggcactaag	16320
cattcaatgg	tgatcaagtc	agctgctttt	gaagatgaag	caaaaatacat	gtttgaagct	16380
gaagataaag	acacaagtgg	caaactgatc	attgaaggaa	tccggctcaa	attcctcacc	16440
cctctcaaag	atgtaactgc	caaagagaag	gaaagtgtgt	tatttactgt	ggagttatct	16500
catgataaca	tccgagttaa	atggttcaag	aatgaccagc	gcctacacac	caccaggtcg	16560
gtctcaatgc	aagacgaagg	gaaaactcat	tcgatcacat	tcaaagacct	gtctattgat	16620
gacacctccc	aaattagagt	agaagctatg	gggatgagtt	cagaagctaa	actcactgtg	16680
cttgagggag	acccatattt	tacaggaaaa	cttcaagatt	atactgggtg	agagaaagat	16740
gaagttattc	tacagtgtga	aattagcaaa	gcagatgcac	cagtgaatg	gtttaaggat	16800
gggaaggaaa	taaagccatc	caaaaatgct	gttattaaga	cagatggcaa	gaaacgcgat	16860
ctaatectaa	agaaagcctt	gaaatcagat	attggacagt	acacctgtga	ctgtgggaca	16920
gataagacct	caggaaaact	tgacattgag	gatcgggaaa	ttaaactggg	gcgacccctg	16980
cacagtgtgg	aggtgatgga	gactgagaca	gcacgctttg	aaaccgaaat	ctctgaagat	17040
gataccacg	ccaactggaa	actcaaggga	gaggccctac	tccaaacacc	tgattgtgaa	17100
attaagggaag	aaggcaaaat	acactccctt	gttttgcaca	actgtcgcct	ggaccagacg	17160
ggtggggtgg	atttccaagc	tgccaatggt	aaatctagtgt	cccacctccg	agttaagcca	17220
cgagtaattg	gtcttctgag	gccttttaag	gatgtcaccg	tgactgcagg	ggaaacagcc	17280
accttcgact	gcgagctctc	ctacgaagat	atcccagtg	aatggtatct	caaaggggaag	17340
aaactagagc	ccagcgataa	ggtggtccca	cggttcagaag	gaaaagtcca	tacacttact	17400
ctgagggatg	taaagttaga	agatgctggg	gaagtccaac	taacagcaaa	agattttcaa	17460
actcagcca	acctctttgt	gaaagaaccc	ccagttgaat	tcactaagcc	tcttgaggac	17520
cagacggtcg	aagagggagc	cactgcagtgt	ctggagtgtg	aagtctccag	agaaaatgct	17580
aaggtgaaaat	ggttcaaaaa	tgggacagaa	atcctcaaaa	gcaagaagta	tgaaattggt	17640
gctgatggca	gggtcagaaa	acttgttata	catgactgta	ccccagagga	tattaaaaca	17700
tacacttgtg	atgctaagga	ttttaagact	tcctgtaacc	tgaatgtcgt	gcctcctcat	17760
gtggaattct	taagcaact	caccgacctt	caagtttagag	aaaaagaaat	ggctcgattt	17820
gagtgtgaac	tttcccgaga	aaatgctaag	gttaagtggg	ttaaagatgg	tgctgaaatt	17880
aaaaagggca	aaaaatatga	catcatatcc	aagggagcag	tgcgatttct	tgctcatcaac	17940
aaatgtctac	tggatgatga	agctgaatat	tcctgtgaag	taaggacagc	gagaacttct	18000
ggcatgctga	cagttcttga	agaagaagct	gtctttacca	aaaatcttgc	caacattgaa	18060
gttagtgaaa	cgacacatat	aaaacttggt	tgtgaagtct	ccaaacctgg	cgcagaagtg	18120
atttgggtata	aaggggatga	ggagatcatt	gaaacaggaa	gatatgaaat	actgactgaa	18180
ggacggaaga	gaatcctggg	cattcagaac	gctcaccttg	aggatgctgg	caactacaac	18240
tgtcgactcc	caagctctcg	aaccgatggc	aaagtcaaa	tacatgaact	ggctgctgaa	18300
tttatctcaa	agcctcaaaa	ccttgaataa	cttgaaggag	aaaaggctga	atttgtctgc	18360
tttatatcaa	aagaaagctt	tcagttccag	tggaaagagg	atgataagac	acttgaatct	18420
ggagataaat	atgacgttat	tgctgatggg	aaaaagaggg	tcctagtgtg	gaaagatgcc	18480
acattacaag	atatgggcac	ttacgttgtc	atggtagggg	ccgccagagc	agcagctcac	18540
ttgacagtca	ttgaaaaact	caggatcgta	gttctcttta	aggacacccg	ggtgaaggaa	18600
caacaggaag	ttgtcttcaa	ctgtgaagtc	aatactgaag	gtgccaaagc	caaatgggtc	18660
agaaatgaag	aagctatat	tgatagttca	aaatacatca	ttctccaaaa	agacctagtc	18720
tacaccctca	gaattagaga	tgcacactta	gatgaccaag	ccaactataa	tgtgtctttg	18780
accaatcaca	gaggtgaaaa	tgttaaaagt	gcagccaatc	taatagtaga	agaggaagac	18840
cttaggattg	ttgagcctct	taaagatatt	gaaacaatgg	agaagaaatc	tgtcacattc	18900
tggtgcaagg	tgaatcgtct	caatgtaaca	ctgaagtggg	ccaaaaatgg	tgaagaagtg	18960
cctttttgaca	accgtgtctc	atacagagtt	gataagtaca	agcacatggt	aaccattaaa	19020
gactgtggct	tcccagatga	aggtgaatac	attgtcactg	ctggacaaga	taaatctggt	19080
gctgagcttc	tcacatagag	agccccgaca	gaatttggg	aacacttgga	agatcagaca	19140
gtcactgagt	tcgatgacgc	tgtcttctcc	tgccagctct	ccagagagaa	agccaatgta	19200
aaatgggtaca	gaaatgggag	agaaatcaaa	gaaggcaaaa	aatacaaaat	tgaaaaagat	19260
ggaagtatac	acagactcat	tataaaagat	tgcaggctgg	atgatgagtg	tgaatatgct	19320
tgcggggtag	aagacaggaa	gtctcgtgtg	agactttttg	tggaaagaaat	tcctgtttgag	19380
atcatcaggc	ctccacaaga	tattcttgaa	gcccttggtg	ctgatgttgt	ctttttagca	19440
gaactcaata	aagataaggt	ggaagtccaa	tggctaagaa	ataacatggt	tggtgtccag	19500

ggtgataaac	accagatgat	gagtgaagga	aagatacatc	gactacagat	ttgtgatatt	19560
aagccccgtg	accaggggtg	atacagattt	attgccaaag	acaaagaagc	cagagctaag	19620
cttgaactgg	cagctgcacc	aaaaatcaag	acagctgacc	aagaccttgt	ggttgatggt	19680
ggcaagcctc	tgacaatggt	ggtgccatat	gatgcctacc	ccaaagcaga	agctgaatgg	19740
tttaaagaaa	atgaaccttt	atctacaaaa	accattgata	ctacggctga	acaaacttct	19800
ttcagaattt	tagaagccaa	gaaaggagac	aaagggagggt	ataaaattgt	gcttcagaac	19860
aaacatggaa	aagcagaagg	attcatcaat	ttaaaagtta	ttgatgttcc	tgggccagta	19920
cgtaacttag	aagtgcagag	aacatttgat	ggtgaagtga	gccttgcttg	ggaagaacct	19980
ttactgatg	gtggaagcaa	aatcataggt	tacgttgttg	aaagacgtga	cattaagaga	20040
aagacctggg	ttctggccac	agacctgca	gagagttgtg	agtttactgt	cactgggtcta	20100
cagaaaggag	gagttgagta	cctattccgt	gtgagtgcaa	gaaacagagt	tggcactgggt	20160
gagccagtag	aaactgacaa	tcctgtagaa	gcaaggagta	aatatgatgt	tccaggccct	20220
cctttgaatg	taacctcac	tgatgtgaat	cgatttggtg	tctcactgac	atgggaacca	20280
ccagagtatg	atggagggtgc	tgagatcaca	aactacgtca	ttgaattaaag	agacaagact	20340
tctatcaggt	gggatactgc	catgactgtg	agagctgaag	acctgtctgc	aactgttact	20400
gatgtggtag	aaggacagga	gtacagtttc	cgagtgcagag	cccaaaatcg	aattggagtt	20460
ggaaaaccaa	gtgcagccac	acccttcgtc	aaagttgctg	atccaattga	gagaccaagt	20520
cctcctgtaa	acctaacttc	ctcagatcag	actcagtcac	cagttcagct	caaattggga	20580
cctcctctga	aagatggagg	aagcccaata	ttaggctata	taattgagcg	atgcgaagaa	20640
ggaaaagata	attggattcg	ttgcaatatg	aaacttgtcc	ctgaactgac	ttacaagggt	20700
accggattgg	aaaaaggaaa	taaataattta	tatagagtat	ctgcagaaaa	taaagctgggt	20760
gtttcagatc	catctgaaat	tcttggtcct	ctcaccgctg	acgatgcatt	tgttgaacca	20820
acaatggatt	taagtgcatt	taaagatggt	ctggaagtta	ttgtcccaaa	tcctatcacg	20880
atcctgggtc	caagtacagg	ctatccaagg	ccaactgcaa	cctgggtgtt	tggagataaa	20940
gtactagaaa	caggggaccg	ggtgaaaatg	aagaccttgt	ctgcctatgc	cgaacttgtc	21000
atttctccaa	gtgaacgttc	agacaagggc	atttatacac	tgaaattaga	aaaccgtgtg	21060
aaaacaattt	ctgggggaaat	tgatgtcaat	gtaattgctc	gcccaagtgc	acccaaagaa	21120
ttgaaatttg	gtgatataac	caaggactca	gtacatttga	cttggggaacc	acctgatgat	21180
gatggaggaa	gtccgttaac	tggatacgtt	gttgaaaaaac	gagaagtcag	ccggaaaaaca	21240
tggactaaag	ttatggactt	tgtgactgat	ctagaattca	cagttcctga	tcttggtcaa	21300
ggaaaagagt	acttatttta	agtttgtgtc	cgtaacaaat	gtggccctgg	agaacctgca	21360
tatgttgatg	aacctgtaaa	tatgtcaact	cctgcaacgg	tacctgacct	accagagaat	21420
gttaaatgga	gagatcgaa	agccaatagc	atcttcttaa	catgggatcc	acctaaaaat	21480
gtgggtggtt	cacgcaccaa	aggatatata	gttgaaagat	gtccacgtgg	ttctgataaa	21540
tgggttgctc	gtggagaacc	tgttgcagaa	acaaaaatgg	aagtgcacag	tcttgaggaa	21600
ggcaaatggt	atgcctaccg	cgtgaagacc	ttaaacaggc	aggggtgctag	caaaccaagc	21660
agaccacag	aggaaatcca	ggctgtggac	acacaagagg	cccagaaaat	cttcctcgat	21720
gtgaagctcc	ttgctgggtc	cactgtaaaa	gctgggacca	agattgaact	tcctgccacc	21780
gtaaccggaa	aacctgaacc	taaaataact	tggacaaaag	ctgatatgat	tctgaagcag	21840
gacaaaagaa	ttaccattga	aaatgtccct	aagaaatcca	cagtacttat	tgttgatagt	21900
aagagaagtg	acactggcac	atatatcatt	gaggctgtga	atgtgtgtgg	ccgggccact	21960
gctgtgggtg	aagtgaacgt	cttagataaa	cccggaccac	cagctgcctt	tgacatcaca	22020
gatgtaacca	atgagtcatg	tcttctaaca	tggaaaccac	cacgcgatga	tgggtggatct	22080
aagatcacaa	actatgttgt	ggagagacga	gcaactgata	gtgaagtgtg	gcacaagctc	22140
tcattccaccg	tcaaggatac	aaacttcaag	gccaccaaat	taatcccaa	taaagagtac	22200
atcttcagag	ttgctgcaga	aaacatgtat	ggtgctgggtg	aaccagttca	ggcctctcca	22260
ataacagcca	aatatcagtt	tgatccacct	ggtcctccaa	ctgcctaga	accttctgat	22320
atcactaaag	acgcagtgc	tctcacatgg	tgtgagccag	atgatgatgg	tggcagccca	22380
atcacaggat	actgggttga	aagactggat	cctgatacag	ataaatgggt	tagatgcaat	22440
aagatgccag	taaaggacac	aacatacaga	gtgaaagggtc	tcactaataa	gaaaaaatac	22500
agattccgtg	tgttggtgta	aaatcttgct	ggacctggaa	aaccaagcaa	atcaactgaa	22560
ccaatcttaa	taaaggatcc	catagatcct	ccatggcccc	ctggaaaacc	aactgtaaaa	22620
gatgtaggca	aaacatcagt	aaggttgaat	tggacaaaac	cagaacatga	tggagggtgca	22680
aagattgagt	cttatgtcat	tgaaatgctg	aagactggaa	cagatgagtg	ggtcagagtg	22740
gcggaagggg	ttcccaccac	tcagcacttg	ctcccagggc	tcattggaagg	acaggaatac	22800
ctattccgag	ttagagctgt	gaataaggct	ggggaaagtg	aaccagtgac	acccagtgac	22860
cctgtgcttt	gccggggagaa	gctatatcct	ccatcaccac	cacgctgggt	tgaagttatt	22920
aatatcacaa	aaaatacagc	agacctaaaa	tggacagttc	ctgagaaaga	tggagggtcc	22980

cccatcacca	actacattgt	ggaaaagaga	gacgtcaggg	gaaaaggctg	gcaaacagtg	23040
gataccactg	tcaaggacac	caagtgacac	gtcaccacac	tgactgaggg	ctctttatat	23100
gtgttccgag	ttgctgcaga	aaatgctata	ggacaaagcg	actacaccga	aattgaggac	23160
tctgtgctgg	ccaaagacac	ctttaccact	cctggaccac	cctacgccct	ggcagtggtt	23220
gatgtgacaa	aacgacatgt	tgacctaaag	tgaggagccac	ctaaaaatga	tggtggaaga	23280
ccaatacaga	gatatgtcat	tgagaagaaa	gaaagggttag	gtaccctgtg	ggtgaaagct	23340
ggaaagactg	caggacctga	ctgtaacttc	agagtaactg	atgtcatcga	aggaacagag	23400
gtccagtttc	aggttcgggc	tgaaaatgaa	gctggagttg	gccaccaag	tgaaccaca	23460
gaaatcctat	ccattgaaga	tccaacaagt	cctccctcac	cacccttga	cctacatgtg	23520
actgatgctg	ggagaaaaca	cattgccatt	gcttggaagc	ctccagagaa	aatggtgga	23580
agtcctatca	taggatacca	tggtgaaatg	tgtccagtag	gcactgagaa	atggatgaga	23640
gttaattctc	gccaataaaa	ggacttgaaa	ttcaagggtg	aagaagggtg	tgttcctgac	23700
aaagaatatg	tcctgagagt	gagagcagtc	aatgctattg	gtgtcagcga	gccatctgaa	23760
atctctgaaa	atgtgggttg	caaagaccga	gactgcaagc	caacaattga	cctggagact	23820
catgacatta	ttgttattga	agggtgaaaag	ttaagcattc	ctgttccctt	cagagctgtc	23880
ccagttccaa	ctgttagttg	gcataaagat	ggcaaagaag	ttaaagcaag	tgatagatta	23940
acaatgaaga	atgatcacat	ctctgcacac	cttgaagttc	ccaagagtgt	ccgtgcagat	24000
gccggaattt	ataccattac	actggagaat	aagctcggct	cagcaacagc	ctcaatcaat	24060
gtcaaagtca	taggcctacc	tggaccatgc	gtagatatta	aagcaagtga	cattaccaag	24120
agttcttgta	agttaacttg	ggaacctcca	gaatttgatg	gtggaacccc	aattcttcat	24180
tatgtcctgg	agcgcagaga	agctgggagg	agaacatata	taccagtcac	gtctggtgag	24240
aacaaactgt	catggactgt	gaaggatctc	ataccaaatg	gtgaatactt	cttccgtgtt	24300
aaagcagtc	acaaggttgg	tggaggagaa	tatatgaaac	tgaaaaatcc	agtcatttgt	24360
caagatccaa	agcaaccccc	tgatccacct	gtagatgtag	aggttcataa	tcctacagcg	24420
gaggcaatga	ctattacatg	gaagccacct	ttgtatgatg	gagggagcaa	gataatgggc	24480
tacatcatag	agaagattgc	taagggtgaa	gaaagggtgga	agagatgcaa	tgaacacctg	24540
gtaccaatcc	tgacctatac	agcaaaagga	cttgaagagg	ggaaagagta	ccaattccgt	24600
gtgcgagcag	agaacgccgc	gggtattagt	gaaccttctc	gggctactcc	tccaaccaa	24660
gctgtagatc	ccattgatgc	cccaaagtc	attctgagaa	caagcctaga	agtgaacgga	24720
ggtgatgaaa	gtgcacttga	tcaacgtatt	tctggatcac	cttaccacac	tattacatgg	24780
ataaaggatg	aaaatgttat	tgtaccagag	gaaattaaga	agcgtgcagc	acccttggtt	24840
aggagaagga	agggtgaagt	tcaagaagaa	gaaccatttg	tcctgcctct	gacacagcgt	24900
ttgagtattg	acaacagcaa	aaaggagaa	tctcagctac	gcgtccgaga	ttctctccga	24960
cctgaccatg	gtctgtatat	gatcaaagtt	gaaaatgacc	acggtattgc	aaaagctcct	25020
tgtactgtca	gtctgttaga	tacaccggga	ccaccaatca	actttgtatt	tgaagatatc	25080
agaaagacct	cagtcctttg	taaatgggaa	ccacccttgg	atgatggtgg	cagtgaatc	25140
ataaactaca	ctttggaaaa	gaaagacaag	acaaaacccg	actcagaatg	gattgttgtc	25200
acttcaacac	ttagacattg	caaattattca	gtaacaaaac	tgattgaagg	aaaagagtac	25260
ctcttccgtg	taagagctga	aaacagatth	gggccaggtc	caccatgtgt	ttcaaagcca	25320
cttgtggcta	aagatccatt	tggaccacct	gatgcaccag	ataagcccat	tgtggaagat	25380
gttaccagca	acagtatgct	agtgaaatgg	aatgaaccaa	aagataatgg	aagccccatt	25440
ttgggttact	ggcttgaaaa	acgtgaagtt	aacagttcac	attggtctcg	tgtcaacaaa	25500
agccttctga	atgccttgaa	agccaatgta	gatggcttat	tagaaggact	cacctatgtc	25560
ttcagagtat	gtgctgaaaa	tgcagctgga	cctggaaagt	tcagtccacc	ttcagatccc	25620
aaaacagcac	atgatccaat	ctctctcct	gggccacctc	tccaagagt	cactgacaca	25680
agctctacaa	ctattgaact	agaatgggaa	ccccagctt	tcaatggtgg	tggggaaatt	25740
gttggctatt	ttgttgataa	gcagttgggt	ggcacaataa	aatggtcacg	ctgcacagag	25800
aagatgatca	aggtccgtca	gtacaccgtc	aaagaaatcc	gagagggtgc	tgattacaaa	25860
cttccgggtga	gtgctgtcaa	tgccgcaggg	gaaggaccgc	ctggagaaac	acaacctgtt	25920
actgtggctg	aaccacaaga	gcctccagct	gtggaactgg	atgtttctgt	caagggtgga	25980
atacaaataa	tggctgggaa	gactcttaga	attccagctg	tggtgactgg	tcgccctgta	26040
cctacaaaag	tatggaccaa	agaagaaggg	gagctggata	aagaccgtgt	tgtaatagac	26100
aacgttggaa	ccaaatctga	actaattatc	aaggatgcac	tgcgaaaaga	ccatggcaga	26160
tatgtgatta	cagctacaaa	tagctgtggt	tccaaatttg	cagcagccag	ggtagaagtt	26220
tttgatgtcc	ctggtccagt	tcttgactta	aaacctgttg	taacaaacag	aaaaatgtgt	26280
ctacttaact	ggtctgatcc	agaagatgat	ggaggaagtg	aaataacagg	ctttatcatt	26340
gaaagaaaag	atgccaaagt	gcatacttgg	agacaaccaa	tagagactga	gagatctaaa	26400
tgtgacatca	caggtctgct	tgagggacaa	gaatataagt	tccgtgttat	tgccaagaac	26460

aagtttggct	gtggccctcc	tgttgaaata	ggaccaatcc	ttgcagttga	tccactaggt	26520
cctccaacat	ctccagagag	gctcacatac	actgaaagac	aaaggtccac	tatcacactt	26580
gactggaaag	agccccgcag	taatggtggc	agtcccatcc	aaggatatat	cattgaaaaa	26640
cggcgtcatg	acaaacctga	ctttgaaaga	gttaacaagc	gactctgccc	aaccacatct	26700
tttctggttg	aaaatcttga	tgaacaccaa	atgtatgagt	tccgtgtcaa	agctgtcaat	26760
gaaattgggtg	aaagtgaacc	atccctacct	cttaatgtag	tcatacaaga	tgatgaagtg	26820
cctccaacta	ttaagtgtcg	tctgagtgtt	cgaggagaca	ctatcaaagt	taaggcagga	26880
gagcctgtcc	acatccctgc	agatgtgaca	ggccttccaa	tgccctaagat	tgaatgggtcc	26940
aaaaatgaaa	ctgtaattga	aaaaccctac	gatgcacttc	agataacca	ggaagaggta	27000
tcccgaagtg	aggcaaaaac	tgagcttagc	attcccaaag	cgggtccggga	ggacaaaggc	27060
acttacacag	ttactgcttc	caatcgcctt	ggctcagtgt	tccgaaatgt	tcacgttgaa	27120
gtatatgacc	gccccatccc	accaagaaat	cttgctgtta	ctgacattaa	agctgaatct	27180
tgctacttga	catgggatgc	ccctcttgat	aatggtggca	gtgaaatcac	ccattatggt	27240
attgacaaaac	gtgatgcaag	taggaagaaa	gcagaatggg	aggaagtcac	caacactgct	27300
gtagagaaaa	gatattgggt	ctggaaactt	atccccaatg	gtcagtatga	gttccgagtc	27360
agggcagtg	ataaatatgg	aatcagtgat	gagtgcataa	cagataaagt	agtcattcaa	27420
gatccttatc	gccttcctgg	acctccagga	aaaccaaag	ttttggcacg	caccaaagga	27480
tcaatgtctag	tgagctggac	tcctcctttg	gacaatgggt	gctctccaat	tactggctac	27540
tggtgggaga	aaagagaaga	gggaagtcc	tattggtcac	gtgttagccg	agcaccaata	27600
accaaagtgg	gattgaaagg	cgtggaat	aatgttcctc	gtttgcttga	aggcggttaa	27660
taccagttca	gagccatggc	aataaatgct	gcaggaattg	gtcctcccag	tgaaccatca	27720
gatccagagg	ttgcaggaga	tcccatat	ccaccggggc	caccttcttg	cccagaagtt	27780
aaagataaaa	cgaagtcaag	catctcacta	ggatggaaac	ctccagccaa	agatggtggc	27840
agcccaatca	aaggatacat	tgtagaaatg	caagaagaag	gtactactga	ctggaaaaga	27900
gtaaatgaac	cagacaaaac	tataactacc	tgtgaatgtg	tggtgcctaa	tctgaaagag	27960
ctcaggaagt	acagattcag	agtgaagct	gtcaatgaag	ctggtgaatc	tgaaccaagt	28020
gatacaactg	gggagatccc	tgccactgat	attcaagagg	aaccagaagt	tttcattgac	28080
attggagcac	aggactgtct	ggtttgtaaa	gctggctcac	agattaggat	tcctgctgtc	28140
atcaagggac	gcccacacc	aaaatcatc	tggaatttg	atggaaaggc	aaagaaagca	28200
atgaaggatg	gagttcatga	catacccgaa	gctgcacagc	tgagagactgc	tgaaaactcc	28260
tcagtaatta	ttattccgga	gtgtaaacga	tctcatacag	gcaaatacag	catcacagcc	28320
aagaataaag	caggacaaaa	gactgcaaat	tgacagagta	aagtcattga	tgtaccaggc	28380
ccacccaaaag	atctgaaagt	cagtgatatc	acaaggggta	gttgacagact	ttcatggaag	28440
atgccagacg	acgatggagg	agacaggatc	aaaggctatg	ttattgagaa	gaggactatt	28500
gatggaaaag	cctggaccaa	agtcattcca	gactgtggaa	gcaccacatt	tgtagtgcct	28560
gatctcctct	ctgaaacagca	atatttcttc	cgtgtgcgag	cagaaaaccg	ttttggtatt	28620
ggcccacctg	tggaaccat	tcagaggacc	actgccagag	atccgatata	tcctcctgat	28680
cctcctatta	aactcaagat	tgccctcatc	acaaagaaca	cagtgcattc	gtcatggaaa	28740
cccccgaaag	atgatggggg	ctcccctgtt	acccactata	ttgttgagtg	ccttgcatgg	28800
gaccctactg	ggacaaagaa	agaagcctgg	aggcagtgc	ataagcgtga	tgtggaagaa	28860
ctgcaatttta	ctgttgaaaga	cctagttagaa	ggtgggggaat	atgaattccg	agtcaaaagt	28920
gtcaatgctg	caggagtcag	caagccttca	gccactgttg	gcccctgtga	ctgtcaaaga	28980
ccagacatgc	caccatcaat	tgatctaaaa	gaattcatgg	agggttgaaga	aggaaccaat	29040
gttaacattg	tgcccaaaaat	taaaggtgtg	ccattcccga	cactaacctg	gtttaaagct	29100
cctccaaaga	agcctgataa	caaagaacct	gttctctatg	acacccatgt	caacaaactg	29160
gtggtagatg	atacttgcac	tttagttatt	ccgcagtctc	gcaggagtga	cactggctta	29220
tataccatca	cagctgtaaa	taatctggga	acagcatcaa	aggagatgag	actgaatgtc	29280
ctgggtcgtc	ctggccctcc	agtgggaccc	ataaaatttg	aatctgtttc	agcagatcaa	29340
atgacactat	cttggtttcc	acctaaagat	gatggtgggt	ctaagattac	aaactatgta	29400
attgagaaaa	gagaagctaa	caggaagaca	tggtgccatg	tctccagtga	acctaaggag	29460
tgacagtcac	cgattcccaa	attgctagaa	ggccatgaat	atgtattccg	aatcatggcc	29520
cagaataaat	atggcattgg	agaacctctt	gacagtgaac	ctgaaacagc	aagaaacctc	29580
ttctctgtcc	ctggagcacc	agataaacca	acagttagca	gcgtgactcg	taactccatg	29640
actgtcaact	gggaagagcc	agaatatgat	ggaggtctct	ctgtgacagg	gtactggctg	29700
gaaatgaaag	acaccacttc	aaagagatgg	aagagagtta	accgagatcc	tatcaaagcc	29760
atgactttgg	gtgtttctta	taaagtgact	ggtcttattg	aaggttccga	ctatcaatcc	29820
cgggtatatg	caatcaatgc	tgctggcgtg	ggtccagcaa	gtctgccatc	agacccagcg	29880
actgctagag	atccaattgc	ccctcctggt	cctccatttc	ccaaagtgc	agattggact	29940

aaatcatctg	cagatctgga	gtgggtctccc	ccactaaaag	atgggtggatc	caaagtaact	30000
ggatacatcg	ttgaatataa	agaagaagga	aaagaagaat	gggaaaagg	taaagataaa	30060
gaagtggagag	gaacaaagct	cgttgtgaca	ggattaaagg	aaggagcatt	ctacaaaattt	30120
agagttagtg	cagtcaacat	tgctggcatt	ggagaacctg	gagaggtcac	agatgtcatt	30180
gaaatgaagg	acagacttgt	ttcacctgac	cttcagctag	atgccagtg	cagagataga	30240
attgttgtcc	atgctggagg	ggtgatccga	atcattgcct	atgtgtctgg	aaagcctcct	30300
ccaaccgtca	cctggaacat	gaatgaaaga	accttacctc	aagaagccac	cattgagacc	30360
acagccatta	gctcatccat	ggtcatcaag	aactgccaga	ggagccatca	aggcgtctat	30420
tctcttcttg	ccaaaaatga	agccggagaa	agaaaagaaga	caattattgt	tgatgtatta	30480
gatgttccag	gtcccggttg	aacaccattc	ctagctcaca	acctaaccac	tgagtcctgc	30540
aaactgacat	ggttttctcc	agaagatgat	ggaggctctc	caatcaccaa	ttatgtcatt	30600
gaaaagcgtg	aatctgaccg	cagagcatgg	accccagtg	catatacagt	tacccgacaa	30660
aatgctactg	tccaggggtc	cattcaagga	aaagcctact	ttttccgaat	tgcggttgaa	30720
aatagtattg	gcatgggtcc	atttggttgag	acatcagagg	cacttggtat	cagagagcca	30780
ataactgtac	cagagcgctc	tgaagacctg	gaagtcaaag	aagttactaa	aaatactgta	30840
actttgactt	ggaatcctcc	taagtatgat	ggtgggtcag	aaattattaa	ctatgtccta	30900
gaaagtcggc	tcattggggac	tgagaagttc	cacaaagtta	caaatagaca	cttgcttagc	30960
agaaaataca	ctgttaaagg	cttaaaagaa	ggtgatacct	atgagtaccg	tgtagtgct	31020
gtcaacattg	ttggacaagg	caaacaccat	tttgcacca	aaccaattac	ttgcaagcca	31080
gagctggcac	ccccaacgct	tcacctcgac	ttcagagata	agctcacgat	tcgagttggt	31140
gaagcttttg	ccctcaactg	ccgttactca	ggcaaaccac	agcctaaggt	ttcctgggtc	31200
aaagatgaag	ctgatgtgct	ggaagatgat	cgactcata	taaagactac	accagcaaca	31260
cttgcttttag	agaagatcaa	ggccaaacgt	tcagattccg	gcaaatactg	tgtggttgtg	31320
gagaacagta	caggctctag	gaaaggtttc	tgtcaagtta	atgttgttga	ccatcctgga	31380
ccaccagtag	gaccagttag	ttttgatgag	gtgaccaaag	attacatggt	tatctcttgg	31440
aagcctcctt	tagatgatgg	aggcagtaaa	atcaccaatt	atattattga	gaagaaggaa	31500
gtgggtaaag	acgtctggat	gccagtgaca	tctgcaagtg	ctaaaacaac	atgcaaagtt	31560
tctaaactac	ttgaaggaaa	agattatatt	ttccgggatac	atgctgaaaa	tctgtatgga	31620
ataagtgatc	ctctgggtgc	tgattcaatg	aaagccaaag	atcgtttcag	ggttcctgat	31680
gcacctgatc	agccaattgt	tacagaagtt	accaaagact	ctgcattagt	aacctgggaat	31740
aagccacatg	atggaggaaa	acccatcaca	aactacatcc	tggaaaagag	agaaactatg	31800
tctaaacgat	gggctagagt	taccaaagat	cctattcatc	cataactaa	atttaggggt	31860
cctgatcttc	tagaaggatg	tcagtatgaa	ttccgggttt	ctgcagaaaa	tgaaattggt	31920
attggagatc	caagcccacc	atccaaacca	gtcttttgcta	aagatccaat	tgctaaacca	31980
agtccacctg	ttaatcctga	agcaatagat	acaacatgca	attcagtcga	tctaacttgg	32040
cagccaccac	gtcatgatgg	gtggagcaag	attctgggtt	atattgttga	gtaccagaaa	32100
gttgagatg	aagagtggag	aagagccaat	cacacccctg	agtcatgtcc	tgaaactaaa	32160
tataaagtca	ccggtcttcg	ggacggtcaa	acctataagt	ttagagtgtt	agcagtcaat	32220
gcagctgggtg	aatcagatcc	agctcatggt	ccggagccag	tcctagtaaa	agacaggctt	32280
gaaccccttg	agttgattct	tgatgccaac	atggcaagag	aacaacacat	taaagttggt	32340
gatactctaa	gacttagtgc	catcatcaaa	ggagtgccat	tcccaaaagt	aacttggaaa	32400
aaagaagaca	gagatgctcc	aactaaagca	agaattgatg	tgactccagt	tggtagcaag	32460
cttgaaattc	gtaatgctgc	ccatgaagat	ggtggaattt	attctttaac	agtggagaat	32520
ccagctgggt	caaaaactgt	ctcagtaaaa	gtacttgat	tagataaacc	tgggccacct	32580
agagatctgg	aagtcagtga	aattaggaaa	gattcatggt	accttacttg	gaaagaacca	32640
ctagatgatg	gtggttctgt	tattaccaat	tatgtggttg	agaggagaga	tgttgccagc	32700
gcccagtggt	cacctctctc	agctacatca	aagaaaaaga	gtcacttcgc	taagcatctg	32760
aatgaaggca	accagtacct	cttccgagta	gctgcggaga	accagtatgg	acgtggtcct	32820
tttgttgaaa	caccaaacc	aatcaaggct	ttggatcctc	tccatcccc	agggccaccc	32880
aaggacctgc	accatgtaga	tgttgacaag	actgaagtct	ccctagtctg	gaataagccg	32940
gatcgtgatg	gtggttctcc	aatcactgga	tatttggtag	aatatcaaga	agaaggcacc	33000
caggactgga	ttaaatttaa	gactgtgaca	aacttagagt	gtgtggttac	tggactacaa	33060
caaggaaaga	cctatagatt	ccgtgtaaaa	gctgaaaaca	ttgtgggtct	tggtctccct	33120
gacacaacta	tcccgataga	atgtcaagaa	aaactagtgc	ctccatccgt	ggagctagat	33180
gtgaaattaa	ttgaagggtc	tggtgtaaa	gctggaacca	cagtcagatt	ccctgctatt	33240
ataagaggtg	tgctgttcc	tactgcaaag	tggacaaccg	atgggagtga	gattaaaacc	33300
gatgagcact	acacagttga	aacagacaac	ttctcatcag	tacttaccat	taagaactgc	33360
ttaaggagag	acactgggga	atatcaaatc	acagtttcca	atgcagccgg	tagcaaaaaca	33420

gtagccgtac	atcttactgt	tcttgatggt	cctgggcccac	caacaggtcc	tattaatatt	33480
ctggatggtta	ctcctgaaca	catgactatc	tcattggcagc	cacctaaagg	tgatggagga	33540
agccctgtga	taaaattatat	tggtgagaaa	caagatacaa	ggaaagacac	gtggggtgtt	33600
gtctcttccg	gaagcagtaa	gacaaagctg	aaaatcccac	atctgcagaa	gggctgtgaa	33660
tatgttttcc	gagtttagagc	agagaataag	ataggtgttg	gtcctcccct	tgactccaca	33720
cctactgttg	ctaagcataa	athtagtcct	ccgtctcctc	ctggtaaacc	agtggttact	33780
gacattactg	aaaatgcagc	aacagtgctc	tggaacctgc	caaaatctga	tggtggcagt	33840
ccaataactg	gctactatat	ggaacgtcga	gaagtaactg	gcaaattgggt	gaggggtcaac	33900
aaaacaccta	tcgctgacct	gaagttcaga	gtgactggac	tctatgaagg	aaatacatat	33960
gagtttagag	tttttgctga	aaatcttgca	ggactaagca	aacctatccc	aagtctctgat	34020
ccaataaaaag	cttgccggcc	catcaaacca	cctggaccac	ctattaatcc	taaactgaaa	34080
gacaagagca	gagaaacagc	tgatttggtg	tggaacaaagc	ctctcagtga	tggtggtagc	34140
cccattctag	gatattgtag	ggaatgtcag	aaacctggca	cggcacaaatg	gaacaggatt	34200
aataaagatg	aactcattag	gcaatgtgcc	tttaggggtac	ctggactaat	tgaaggaaat	34260
gagtacagat	tccgtataaa	ggcagcta	attgtaggag	aggggtgagcc	aagagaacta	34320
gcagaatctg	tgattgcaaa	agatatcctt	catcctccag	aagtagaact	tgatgttact	34380
tgctcgtgatg	ttattaccgt	gagagtaggc	caaactatcc	gcattctagc	tcgagtcaaa	34440
ggcagacctg	aaccagacat	aacttggact	aagggaaggca	aagtattggt	ccgagaaaag	34500
aggggtggacc	ttattcagga	tctacctcgt	gttgagttac	aaattaaaga	agctgttaga	34560
gctgatcatg	gcaagtatat	catctcagct	aagaacacgca	gtggacatgc	ccaagggttca	34620
gccatcggtta	acgtccttga	cagacctggg	ccttgccaga	atgtgaaggt	taccaatgta	34680
accaaagaga	actgtacaat	ttcttgggaa	aaccactag	ataatgggtg	ctcagaaata	34740
acaaacttca	tagtagaata	tcgcaaacca	aaccagaaag	gctgggtcaat	tggtgcatca	34800
gatgtcacta	aacgattaat	caaggccaac	cttttagcca	acaatgaata	ctatttccga	34860
gtttgtgcag	agaataaaagt	aggtgttggg	ccaaccatcg	aaacaaaaac	tccatttctg	34920
gctattaacc	ctattgacag	accaggtgag	cctgaaaacc	ttcacattgc	agataaagga	34980
aagacatttg	tctacctaaa	gtggcggagg	cctgactatg	atgggtggcag	tccaaatctg	35040
tcatatcatg	ttgagagaag	gcttaagggc	tccgatgact	gggaaagagt	gcataaagga	35100
agcattaaaag	aaactcacta	catggttgac	agatgtgttg	aaaaccagat	ttatgagttc	35160
agagtgcaaa	caaagaatga	aggtggggaa	agtgactggg	tgaagacaga	ggaagtgtgt	35220
gtgaaagaag	acttacaaaa	accagtactt	gatctgaaat	taagtggggt	cctaactgtc	35280
aaagcagggg	acaccattag	gcttgaggca	ggggttagag	gcaaaccatt	cccagaagtt	35340
gcatggacca	aggacaaaag	cgctacagac	ttaacaagat	caccaagggt	caagattgat	35400
acccgtgctg	attcatctaa	attttctctt	actaaagcaa	agcgaagtga	tgggggtaaa	35460
tatgtagtta	cggcactaa	acaggctggc	agttttgttg	cctatgccac	tgatcaatgt	35520
ttagataagc	ctgggtcctgt	gagaaatctg	aaaattgttg	atgtgtccag	tgataggtgt	35580
actgtttgct	gggatccacc	agaagatgat	ggtggctgtg	aatccaaaa	ttatattcta	35640
gaaaaatgtg	agacaaagcg	aatggtttgg	tctacctatt	ctgctactgt	cttgacacct	35700
ggtactacag	taacacgtct	catagaagga	aatgaatata	ttttcagagt	ccgtgcagaa	35760
aataaaaatag	gcacagggcc	tccaacagaa	agtaaacacag	tcatagccaa	aaccaagtat	35820
gataaacctg	gtcgccctga	tccccagaa	gtcactaaag	taagcaaaga	agagatgact	35880
gtgggtttgga	atccacctga	atatgatggt	ggaaagtcta	taactggata	ctttttggag	35940
aaaaagggaaa	agcattcaac	acgatgggtc	cctgtcaaca	agagtgcatt	ccctgagaga	36000
cgtatgaaag	tacagaatct	cctcccagac	catgaatatc	agttccgtgt	caaggcagaa	36060
aatgaaattg	gaattggaga	accaagcttg	ccttcaagac	cggtgggtggc	aaaagacccc	36120
atagagccac	ctgggtccacc	aaccaatttc	agagtgggtg	atacaaccac	acattccata	36180
actcttgggt	gggggaaaacc	agtctatgat	ggtggtgcac	cgatcattgg	atatgttgtg	36240
gaaatgagac	caaaaatagc	agatgcgtct	cctgatgaag	gctggaaacg	gtgtaatgct	36300
gcagcacagc	ttgtacgcaa	ggaattcact	gttaccagct	tggtatgaaa	ccaggaatat	36360
gagttcaggg	tgtgtgcccc	aaaccaagtt	ggtattgggc	gccctgcaga	gctaaaggaa	36420
gctatcaaac	ctaaagaaat	actagaacct	ccggagattg	atgttgatgc	cagcatgagg	36480
aaactgggtca	tagtgagagc	aggatgccct	attcgtctct	ttgctatagt	gagaggacga	36540
ccagccccta	aagtcaactg	gcgaaaagtt	ggcattgata	atgtgggtcag	aaaaggacaa	36600
gttgatctgg	ttgacactat	ggccttcctt	gtcatcccca	attctaccog	tgatgactca	36660
ggaaaatatt	ccttaacact	tgtgaaccca	gcaggagaaa	aggctgtatt	cgtaaatgtc	36720
agagtattag	acactcctgg	gctctgtctc	gattttaaag	tttcagatgt	cactaaaaca	36780
tcatgccatg	tgtcctgggc	ccctcctgaa	aacgcaggtg	ggagccaagt	gacacattat	36840
atcgtggaga	aacgtgaggc	agacagaaag	acatgggtcga	ccgttacccc	agaagttaag	36900

aaaacaagct	tccatgtaac	caatcttgct	cctgggaatg	agtattactt	cagagtaact	36960
gctgtcaacg	aatatggccc	tggcggtccc	acagatgtcc	caaaaccagt	gcttgcatca	37020
gatcctctaa	gtgagccgga	cccccaagg	aaattagaag	cgactgaaat	gaccaagaac	37080
agtgccacct	tagcctgggt	acctccccta	cgtgatggag	gtgctaaaat	cgatggctac	37140
atcattagtt	acagagaaga	agagcagcct	gcagatcgct	ggacagagta	ctcagtggta	37200
aaagatctga	gccttgttgt	cactggccta	aaggaaggaa	agaaatacaa	atttagagta	37260
gcgggccagaa	atgctgttgg	agtcagtttg	ccaagagaag	ctgaaggagt	gtatgaagcc	37320
aaagagcaac	tgttgccacc	aaagatcctt	atgccagagc	aaataactat	caaagctggg	37380
aaaaaactcc	gaattgaagc	ccatgtgtat	ggaaaagcctc	atcccacctg	taaaatggaaa	37440
aaaggagaag	atgaagttgt	cacatccagc	cacctggcag	tgcataaagc	agacagctct	37500
tcaattctga	tcataaaaga	tgtgactagg	aaagacagtg	gttactacag	cctcacagca	37560
gagaacagtt	ctgggacaga	cactcagaaa	atcaaagttg	tagtcatgga	tgcccccgcc	37620
ccccctcagc	ctccatttga	catttctgat	atagacgctg	atgcttgctc	cctgtcatgg	37680
cacatccctc	tggaggacgg	aggcagtaac	atcaccaatt	atatagtgga	gaagtgtgat	37740
gtaagccgag	gtgactgggt	cacggctcta	gcttcagtca	caaaaacttc	ctgcagggtt	37800
ggaaagctga	tcccaggcca	agagtacatc	ttccgggtcc	gtgctgaaaa	ccgatttgcc	37860
atttcagagc	ctctcacatc	tccaaagatg	gttgccgagc	tcccatttgg	tgctcctagt	37920
gaaccaaaga	atgcacgagt	caccaaaagt	aacaaggact	gtatttttgt	tgcttgggac	37980
agaccagata	gtgatggagg	gagccccatt	attgggtatc	tgattgaacg	caaggaaaaga	38040
aacagtttgc	tgtgggtgaa	agccaatgat	actcttgctc	gggtcaactga	atataccttgt	38100
gctggccttg	tagaaggtct	tgagtattca	ttcagaatct	atgccctaaa	caaagctgga	38160
tccagcccac	ccagcaaac	cacagaatat	gtaactgcaa	gaatgccagt	tgatcctcct	38220
gggaaacctg	aggttattga	tgtcaccaag	agtactgtat	ctctgatctg	ggctcgteca	38280
aagcatgatg	gaggcagtaa	aattattggc	tatttcgtag	aagcttgcaa	acttctctgt	38340
gataaatggg	tacgggtgca	tactgcacct	caccagattc	cccaggaaga	gtacacagct	38400
actggcctag	aagagaaagc	tcagtatcaa	tttagagcta	ttgccaggac	cgcggtaaac	38460
attagcccac	cttctgaacc	ttctgatcca	gtgactatcc	tcgcagaaaa	tgccccctcc	38520
aggatagacc	tgagtgtggc	tatgaaatct	ttgcttactg	tgaaagctgg	aactaatgtc	38580
tgcttgggat	ctactgtttt	tggtaaaacc	atgccaacag	tttcttgga	aaaagatggc	38640
acactgctaa	aaccagcaga	aggcataaag	atggccatgc	agcggaatct	gtgcaccttg	38700
gagctattca	gcgtgaaccg	gaaggactca	ggagactata	ccattactgc	tgaaaattca	38760
agtggttcta	aatcagccac	cattaagctt	aaagtgttag	ataaaccggg	tcctccagca	38820
tctgttaaaa	tcaacaaaa	gtattcagat	cgtgctatgc	tttcttgga	accgcctctt	38880
gaagatggag	gctcagaaat	caccaactat	attgttgaca	aacgtgaaac	aagcaggccc	38940
aactgggctc	aagtctctgc	aacttctgct	atcaccagct	gcagcgtgga	gaaacttata	39000
gagggccatg	agtatcagtt	ccgtatttgt	gctgaaaata	aatatggagt	aggcgatcca	39060
gtcttctact	aaccagcaat	tgccaaaaac	ccatatgacc	caccaggacg	ctgtgatcct	39120
cctgttatta	gcaacataac	caaagatcac	atgacagtca	gctggaagcc	accagcagat	39180
gatgggggct	cacccatcac	tggtctattt	cttgaaaagc	gggaaaccca	ggctgttaac	39240
tggactaagg	tcaacagaaa	acctattata	gaaagaacat	taaaagcaac	aggtcttcaa	39300
gaaggtaccg	aatatgagtt	ccgtgttaca	gctataaata	aagctggacc	aggcaaacc	39360
agtgacgcat	ccaaggccgc	ttatgtctcg	gacctcagt	atcctcctgc	gccaccggct	39420
ttccctaaag	tatatgatac	aactcgcagc	tctgtgagtc	tatcttgggg	caagccagcc	39480
tatgacggcg	gcagccctat	catttggtat	ctcgttgaag	taaaacgggc	tgactccgat	39540
aactgggtga	ggtgcaactt	accacagaat	ctacagaaaa	cccgtttga	ggttactggc	39600
ctgatggaag	acacacaata	tcaattccgt	gtgtatgccg	ttaataagat	tggatacagt	39660
gacccacgtg	atgtgccaga	taaacactat	cccaaggaca	tcttaattcc	acctgaggga	39720
gaacatgatg	cggacttaag	gaagacactc	atattacgtg	ctggagttac	tatgagacta	39780
tatgtaccag	taaaaggacg	cccacctcca	aagattactt	ggctctaaac	aatgtcaat	39840
ctaagagaca	ggattggact	ggacataaag	tcaactgact	ttgacacttt	cttgcgctgt	39900
gaaaatgtga	acaaatatga	tcaggaaaa	tatatcttaa	ccctggagaa	cagctgtggt	39960
aaaaaggaat	ataccattgt	tgtgaaagtg	cttgatactc	ctgggccacc	tatcaatgtg	40020
actgttaagg	aaatatccaa	agactctgct	tatgttacct	gggagcctcc	cattattgat	40080
ggcggaagcc	ccatcataaa	ctatgtggta	caaaaacgtg	atgcagagag	gaaatcctgg	40140
tctacagtga	caactgagtg	ctccaaaaca	agcttcagag	tacctaat	ggaggaggga	40200
aaatcctact	tctccgagtg	gtttctgtaa	aatgagtgat	gcattggtga	tcccgggtga	40260
actcgtgatg	ctgtcaaaag	ttcccaaaact	cctggaccag	ttgtggacct	gaaagtgagg	40320
tctgtatcta	agtcacctct	tagcattggc	tggaaaaagc	ctcacagtga	tggtggaagt	40380

cggattattg	gatatgtagt	tgatttcctg	actgaagaaa	ataagtggca	acgagttatg	40440
aaatccttaa	gcctacagta	ctctgcaaaa	gatttgactg	aaggggaagga	atataccttc	40500
agagtgagt	ctgagaatga	aaatggagaa	ggaaccccaa	gcgaaatcac	tgttgtggca	40560
agggatgat	ttgtggctcc	tgatcttgac	ttaaagggtc	tacctgattt	gtgctacttg	40620
gctaaagaaa	acagcaactt	ccggcttaag	atccccataa	aaggcaagcc	agctccatca	40680
gtctcctgga	agaaagggga	agatcctcta	gcaactgaca	ctagagtcag	tgttgagtca	40740
tctgcggtta	acacaactct	tatagtgtac	gattgccaaa	aatctgatgc	tggaaaatac	40800
acaatcacac	ttaagaatgt	tgctggcacc	aagggaaggaa	ctatctccat	aaagggtggt	40860
ggcaagcctg	gcatccccac	tggaaccaatc	aaatttgatg	aagtcacagc	agaagccatg	40920
accttaaagt	gggctcctcc	aaaggatgat	ggaggttctg	aaatcaccaa	ctatatccta	40980
gagaagaggg	attctgtgaa	caacaagtgg	gtgacgtgcg	cctcagctgt	ccagaaaacc	41040
accttttagag	taaccagact	tcatgagggc	atggaatata	ccttcagggt	cagtgccgaa	41100
aataaataatg	gtgtagggga	aggcctgaaa	tcggagccaa	ttggttgcgag	acatccattt	41160
gatgtgcctg	atgctccccc	acctcccaat	attgtggatg	tcagacacga	ttcagtatct	41220
ctaacttggga	ctgaccccaa	gaaaactgggt	ggttctccaa	ttacagggtta	tcatctcgag	41280
ttcaaggaaa	gaaacagcct	tttgtggaag	agagctaaca	agactccgat	aaggatgaga	41340
gactttaaag	tgacaggatt	aactgaaggt	cttgaatatg	aattccgagt	tatggcaatc	41400
aatttagcag	gtgtgggcaa	gccaaagccta	ccatcagagc	ctggttgtggc	actggaccca	41460
attgatcctc	ctggaaaacc	tgaggttatt	aacataacaa	ggaattcagt	gactctcatt	41520
tggaactgaac	ctaaatatga	cgggtggctcat	aagttaactg	gatatatagt	ggagaagcga	41580
gatctacctt	cgaagtcttg	gatgaaagcc	aaccatgtta	atgtcccaga	atgtgccttt	41640
actgtaactg	accttgttga	gggtggaaaa	tatgaattca	gaattagagc	aaagaatata	41700
gcaggtgcta	tcagtgtctc	atcagaaagt	acagaaacca	ttatttgcaa	ggatgaatac	41760
gaggcaccaa	caattgtcct	tgatcccaca	ataaaaagatg	ggctaacaat	taaagcaggg	41820
gataccattg	ttttgaatgc	cattagcatt	cttggcacaac	cccttccaaa	atcaagttgg	41880
tccaaggcag	gaaaagacat	tagaccatca	gatatcactc	agataacttc	aaccccaaca	41940
tcttccatgc	ttactatcaa	gtatgccact	agaaaagatg	cgggtgaata	taccatcact	42000
gctaccaatc	cttttggcac	gaaggtggaa	catgtgaagg	taacagtcct	tgatgtacct	42060
gggtccccag	gtcctgttga	aatcagtaat	gtttctgctg	aaaaagcaac	acttacatgg	42120
acacctccct	tgggaagatgg	cggctcacca	attaagtcct	atatacttga	aaagagagaa	42180
accagccgac	ttttgtggac	agtggtttct	gaagatattc	agtcttgcag	gcatgtggca	42240
accaaactta	tccaaggaaa	tgagtacatc	ttccgggtct	cagctgtaaa	ccactatggc	42300
aaaggagaac	ctgtacagtc	tgaacctgtc	aaaatggtag	acagatttgg	ttccccctggc	42360
cctcctgaaa	aaccagaggt	atcaaatgtc	actaagaaca	ctgccactgt	cagctggaaa	42420
aggccagtgg	atgatgggtg	cagcgaaatt	acaggatatc	atgtagaaag	gagagaaaaa	42480
aaaagcctgc	gatgggtgag	agcaataaaa	acaccagttt	ccgatctcag	gtgcaaagta	42540
acaggactgc	aagaaggaag	cacctacgaa	ttccgtgtca	gtgcagaaaa	cagagcagga	42600
atttggtccac	ccagtgaggc	ttcagattct	gttctgatga	aagatgcagc	atatacctcca	42660
ggaccacctt	caaataccgca	tgctactgat	actaccaaga	aatctgtctc	tttggcatgg	42720
ggcaagcctc	attatgatgg	tggacttgaa	atcactggct	atgtcgtgga	gcatcaaaaa	42780
gtaggagacg	aggcctggat	aaaagatacc	acaggaaccg	ccctcagaat	cactcagttc	42840
gttggttcctg	atcttcagac	taaagaaaaa	tacaacttca	gaatcagtgc	catcaacgat	42900
gcaggtgttg	gggagccagc	ggtgattcca	gatgttgaaa	tcgtagaacg	ggagatggct	42960
cctgattttg	aactagatgc	cgagcttcga	agaacacttg	ttgttagagc	aggactcagt	43020
attaggatat	ttgtgccaat	taaaggtcgt	cctgtctcctg	aagtgcacatg	gaccaaagat	43080
aacatcaacc	tgaaaaaccg	agccaacatt	gaaaaatacgg	aatcattttac	tcttctgatt	43140
atcccagaat	gtaacagata	tgataccgggt	aaatttgtca	tgaccattga	aaacccggct	43200
gggaagaaaa	gtggctttgt	gaacgtcaga	gtcttggaca	cgccaggccc	agtcctcaac	43260
ctgcggccta	cagacatcac	aaaggacagt	gtcaccctgc	actgggacct	ccctctgata	43320
gatggaggct	cacgtataac	aaactacatt	gtagagaaac	gtgaagcaac	acggaaatct	43380
tattccacag	ccaccactaa	gtgccataaa	tgccacatata	aagttaccgg	cttgtctgaa	43440
gggtgtgaat	atttcttcag	agtgatggca	gagaatgaat	atggaattgg	tgagccaaca	43500
gaaactacag	agcccgtaaa	agcctctgaa	gcaccatctc	caccagacag	ccttaacatc	43560
atggacataa	ctaagagcac	cgtcagcctg	gcatggccta	agcccaacaa	cgtgggtggc	43620
agcaagatca	ctggctatgt	gattgaagcc	caaagaaaag	gctctgacca	gtggacccac	43680
atcacaccg	tgaagggtt	agaatgtggt	gtgaggaatc	taactgaagg	agaggaatat	43740
accttccaag	tgatggcagt	gaacagcgcg	gggagaagtg	cccctagaga	aagcagaccc	43800
gtcattgtca	aggagcagac	aatgcttcca	gagctggatc	tccgtggcat	ctatcagaaa	43860

ctggtcattg	ccaaagctgg	tgacaacatc	aaagttgaaa	ttccagtgct	cggtcgaccg	43920
aagcccacag	tgacatggaa	aaaaggagac	caaattctta	aacagacaca	gagagttaat	43980
tttgaaaacca	cagcgacttc	aaccatttta	aatatcaatg	agtgtgtcag	aagtgatagt	44040
gggccctatc	cattaacagc	aaggaacatt	gtaggagagg	ttggtgatgt	catcaccatt	44100
caagtccatg	atatcccagg	gccacctact	ggaccaatca	aatttgatga	agtttcatct	44160
gattttgtaa	ccttctcttg	ggaccacact	gagaacgatg	gtggtgtacc	aataagcaac	44220
tatgtagtgg	aaatgctggc	gactgacagt	actacctggg	ttgagttagc	aaccaccgtt	44280
atacgtacta	cctataaagc	caccgcctt	actactggat	tagagtatca	gttccgtgta	44340
aaagctcaga	atagatatgg	agttggacca	ggcatcacat	cagcatggat	agttgccaac	44400
tatccattta	aggttctctg	acctcctggt	acccctcagg	taactgcagt	taccaaggat	44460
tcaatgacaa	ttagctggca	tgagccactt	tctgatggtg	gaagcccat	tttaggatat	44520
catgttgaaa	gaaaagaacg	aaatggtatt	ctctggcaga	ctgtgagcaa	agcttttagta	44580
ccaggcaaca	ttttcaaate	aagtggactt	acagatggta	ttgcttatga	gttccgggtg	44640
attgcagaaa	acatggcagg	caaaaagtaag	ccaagcaagc	catcagaacc	tatgttggct	44700
ctggatccca	ttgaccacc	tggaacacca	gtacctctaa	atattacaag	acacacagta	44760
acacttaaat	gggctaagcc	tgaatatact	gggggcttta	aaattaccag	ttatatcggt	44820
gaaaagagag	accttcctaa	tggaagggtg	ctgaaggcca	acttcagcaa	cattttggag	44880
aatgaattta	cagtcagtgg	cctaacagaa	gatgctgcat	atgaattccg	tgtgatcgcc	44940
aaaaatgctg	caggtgccat	cagtcacaca	tctgagccat	ctgatgctat	cacttgcagg	45000
gatgatgttg	aggcaccaaa	gataaagggtg	gatgtttaat	ttaaggacac	ggttatatta	45060
aaagcagggtg	aagcattcag	actggaagct	gatgtttcag	gccgcccacc	tccaacaatg	45120
gaatggagca	aagatggaaa	agagctggaa	ggcacagcaa	agttagaaat	aaaaattgca	45180
gattttctcta	ctaactctggt	aaacaaagat	tcaacaagaa	gggatagtgg	tgctataacc	45240
cttacagcga	ctaactctggt	tggtcttgct	aaacacattt	tcaatgtcaa	agttcttgag	45300
agaccaggcc	cacctgaagg	acctttggct	gtaactgaag	tgacatcaga	aaagtgtgta	45360
ctatcatggt	tccctccact	ggatgatgga	ggtgccaaaa	ttgatcatta	catagtacag	45420
aaacgtgaaa	ccagcagatt	ggcatggaca	aatgtagcct	cagaagtcca	agtaacaaag	45480
ctaaagggtca	ctaaactctt	gaaaggcaat	gaatacatat	tccgtgtcat	ggctgtaaat	45540
aaatatggag	tgggagagcc	actggaatca	gagcctgtgc	ttgcagtga	tccttatgga	45600
ccccctggac	cgccccaaaa	ccctgaagtg	acaactatta	ctaaagattc	gatggttgct	45660
tgctggggac	atcctgattc	tgatggtgga	agtgaatca	tcaattatat	tgtgggaacgg	45720
cgatgataaag	ctggccaacg	ctggattaaa	tgcaacaaaa	aaactcttac	tgattttaaga	45780
tataaagtgt	ctggactgac	agaaggacat	gaatatgagt	tcaggattat	ggctgaaaat	45840
gctgctggaa	ttagtgcacc	aagtccatcc	agtcattttt	acaaggcttg	tgacactgtg	45900
tttaaacctg	gaccaccagg	taaccacagt	gttctggata	caagcagatc	atccattttc	45960
atcgcttggg	catattcaac	ctatgatggt	ggttcagaaa	tcactgggta	tatggttgag	46020
attgccctgc	cagaggaaga	tgaatggcag	attgtcactc	caccagcagg	actcaaggca	46080
acttcgtata	ctatcactgg	cctcacagag	aatcaggaat	ataagatccg	catctatgcc	46140
atgaattccg	aaggacttgg	ggaacctgcc	cttgttcctg	gaactccaaa	ggctgaagac	46200
agaatgctgc	ctccagaaat	tgaactggat	gctgacctgc	gcaaagtgtg	tactataagg	46260
gcctgctgca	ccctgagact	ttttgttccc	atcaaaggaa	ggcctgacct	tgaggtgaag	46320
tgggcccggg	accatggaga	atcttttagat	aaagctagca	tcgaatccgc	aagctcttac	46380
accctgctta	ttgttggaag	tgtaaacaga	tttgacagtg	gcaaatatat	actaactgta	46440
gaaaatagtt	caggcagcaa	gtctgcattt	gtcaatgtta	gagttctcga	tacaccaggc	46500
ccccacacag	atctgaaggt	aaaagaggtc	actaagacat	ctgtcacact	catatggggac	46560
ccacctctcc	ttgatggagg	ttcaaaaatc	agaactata	ttgttgaaaa	gcgggaatca	46620
acaagaaaag	catattcaac	tgttgcaaca	aactgccaca	agacttcctg	gaaggtagac	46680
cagcttcaag	aaggctgtag	ctactatttc	agggttctcg	cagaaaatga	atatggcatt	46740
gggctgcctg	ctgaaaccgc	agaatctgtg	aaagcatcag	aacgacctct	tcctccagga	46800
aaaataactt	tgatggatgt	cacaagaaat	agtgtgtcac	tctcttggga	gaaaccagag	46860
catgatggag	gcagccgaat	tctaggctac	attgtggaga	tcagaccaa	aggcagtgc	46920
aaatggggca	cgtgtgccac	agtcaaggct	actgaagcca	ctatcactgg	attaattcac	46980
ggtgaagaat	actctttccg	tgtttcagct	cagaatgaaa	agggcatcag	tgatcctaga	47040
caactgagtg	tgccagtgat	cgccaaagat	cttgctattc	caccagcctt	caaactcctg	47100
ttcaatactt	tactgtact	ggcagtgtaa	gacctaaaag	ttgatgttcc	attcattggc	47160
cgccctaccc	cagctgtaac	ctggcataaa	gataatgtac	cactgaagca	gacaactaga	47220
gtaaatgcag	agagcacaga	aaataattca	ctactgacaa	taaaggacgc	ctgccgagaa	47280
gatgttggcc	attatgtggc	taaactgact	aactcagctg	gtgaagctat	tgaaccctt	47340

aatgttatcg	ttcttgacaa	accagggcct	ccaactggac	cagttaaaat	ggatgaagt	47400
acagctgata	gtattactct	ttcctggggc	ccaccaagt	atgatggcgg	aagttctatc	47460
aataattaca	ttggttgagaa	acgggacact	tccacaacca	cctggcaa	tgtatcagct	47520
acagttgcaa	ggacaacaat	aaaggcctgc	agactgaaga	ctggatgtga	atatcagttt	47580
agaattgcag	ctgaaaacag	atatgggaag	agtacctacc	tcaattcaga	gcctactgta	47640
gccaatatac	cattcaaagt	tcctgggtcct	cctgggactc	cagttgtcac	actgtcctcc	47700
agggacagca	tggaagtaca	atggaatgag	ccaatcagtg	atggaggaag	tagagtcat	47760
ggctatcatc	tagaacgcaa	ggaaagaaat	agcatcctct	gggttaagtt	gaataaaaca	47820
cctatttctc	aaaccaagtt	taagacaact	ggccttgaag	aaggtgttga	atatgaattt	47880
agagtctctg	cagagaacat	cgtgggcatt	ggcaagccga	gtaaagtatc	agaatgttat	47940
gtggctcgtg	acccatgtga	tccaccagga	cggccagagg	caatcattgt	cacaaggaat	48000
tctgtgactc	ttcagtgga	gaaaccacc	tatgacgggtg	gaagcaagat	cactgggttat	48060
attgttgaga	agaaagaatt	acctgagggc	cgttggtatga	aagccagttt	tacaaatatt	48120
attgacactc	atgttgaa	aactggccta	gttgaaatc	acagatatga	gttcgggtt	48180
atagcccga	atgccgcagg	agtgtttagt	gagccttcag	aaagcacagg	agcaataaca	48240
gctagagatg	aggtagatcc	accacgaata	agtatggatc	caaaatacaa	agacacaatc	48300
gtgggttcac	ctgggtgaatc	attcaaggtt	gatgcagata	tttatggcaa	accaatacca	48360
accattcag	ggataaaagg	tgatcaggag	ctttcaaaca	cagctcgatt	agaaataaag	48420
agcaccgact	ttgccaccag	tctcagtgta	aaagatgcag	tacgtgtcga	cagtggaaat	48480
tacatactga	aggccaaaaa	tggtgcagga	gaaagatcag	ttactgtgaa	tgtcaagttt	48540
cttgacagac	cagggccacc	tgaaggacct	gttggttatct	caggagttac	agcagaaaaa	48600
tgacacactag	cttggaacc	cccacttcag	gatgggtggga	gtgacatcat	aaattatatt	48660
gtggaaagga	gagaaaccag	ccgcttagtt	tggactgtgg	ttgatgccaa	tgtgcagact	48720
ctcagctgca	aggttactaa	gcttcttgaa	ggcaatgaat	atactttccg	tataatggca	48780
gtaaacaaat	atgggtgttg	tgaacctctt	gaatctgagc	cagtagttgc	caagaatcca	48840
ttttagtagtac	cagatgcacc	aaaagctcca	gaagtcacaa	cagtgacca	ggactcaatg	48900
attgtttgat	gggaaagacc	agcatctgat	ggtggttagtg	aaattcttgg	atatgttctt	48960
gagaaacggg	ataaagaagg	cattagatgg	acaagatgcc	ataagcgtct	gattggagag	49020
ttgcgcctga	gagtaactgg	actcatagaa	aatcacgatt	atgagttcag	agtttctgct	49080
gagaatgctg	ctggacttag	tgaaccaagc	cctccttctg	cttaccaaaa	ggcttgtgat	49140
cctattttata	aaccaggacc	cccaaacaac	cccaaagtca	tagacataac	cagatcttca	49200
gtatttcttt	cttgagcaa	accaatatat	gatggtggct	gtgaaattca	aggatacatt	49260
gttgaaaaat	gtgatgtgaa	tggtgtgaa	tggacaatgt	gcactccacc	aacaggaatt	49320
aataaaacaa	acatagaagt	agagaagctg	ttggaaaagc	atgaatacaa	cttcggtatc	49380
tggtctatta	ataaagctgg	agttggagaa	catgctgacg	tccctggacc	tattatagtt	49440
gaagaaaaat	tagaagcacc	agacattgat	cttgacctag	aactaaggaa	aatcataaat	49500
ataagggcag	tggtctcctt	aaggttatctt	gttctctataa	aaggtcgtcc	tacaccagaa	49560
gttaaattggg	gaaaggtgga	tggtgaaatc	cgagatgcag	ctataattga	tgtcactagc	49620
agtttcacct	ctctgttct	tgacaatgtc	aaccgatatg	atagtggaaa	atatacgctt	49680
acattagaaa	acagcagtg	aacaaagtct	gcctttgtta	ctgtgagagt	tctggacacg	49740
ccaagtccac	ctgttaacct	gaaagtcaca	gaaatcacca	aagactcagt	atcaattaca	49800
tggaacctc	ctttgttgga	tgggggatcc	aaaataaaaa	attacattgt	tgagaaacgt	49860
gaagccacaa	gaaaatcata	tgctgctgtt	gtaactaact	gccataagaa	ttcttggaaa	49920
atcgatcagc	tccaagaagg	ttgcagttat	tacttttagag	tcacagctga	gaatgagtat	49980
ggtattggcc	ttcctgcca	gactgctgat	ccaattaagg	ttgcagaagt	gccacaacct	50040
cctggaaaaa	taactgtgga	tgatgtcacc	agaaacagtg	tctctctgag	ttggacaaaa	50100
cctgaacatg	atggtggcag	taaaatcatt	cagtatattg	tggaatgca	agctaaacac	50160
agtgagaaat	ggtcagagtg	tgctcgagta	aagtctcttc	aggcagtaat	taccaacctc	50220
actcaagggg	aagaatatct	tttttagagtt	gttgctgttaa	atgaaaaggg	gagaagtgat	50280
cctcggtccc	ttgcagttcc	aatagttgcc	aaagatctgg	taattgagcc	agatgtaaaa	50340
cctgcattca	gtagttacag	gttacagggt	ggccaagatt	tgaaaataga	agtgccaatt	50400
ctggagcgtc	ctaagccaac	cattacctgg	actaaagatg	gtctcccact	gaagcagacc	50460
acaagaatca	atgttaccca	ttcactggat	ctcaccacac	tcagtattaa	agaaactcat	50520
aaggatgatg	gtggacaata	tggaaatcaca	gttgccaatg	ttgttgggtca	gaagacagca	50580
tccatcgaaa	ttgtaactct	agataaacct	gactctccaa	aaggacctgt	taaatattgat	50640
gacgtcagtg	ctgaaagtat	tacattatct	tggaaacctc	cattatatac	agggggctgc	50700
caaatcacca	actacattgt	tcagaaaaga	gataacaaca	ccacagtatg	ggatgttggt	50760
tctgctactg	ttgctagaac	tacactcaaa	gtgaccaaac	tgaaaactgg	tacagaatac	50820

caatthagaa	tattttgccga	aaacagatat	ggacaaagct	ttgccttaga	gtctgatcca	50880
attgtagctc	aatatcccta	caaagaacca	ggccctccag	gtacaccatt	tgccacagcc	50940
atttccaaag	actccatggt	catacagtgg	catgaaaccag	tcaacaatgg	tggaaagcccc	51000
gtcatagggt	accacctgga	gagaaaagaa	agaaacagta	ttttgtggac	aaaggtcaac	51060
aaaactatta	ttcatgacac	ccaattcaaa	gcacagaatc	ttgaagaagg	cattgaatat	51120
gaattcagag	tgtatgctga	aaatattggt	ggtgtaggca	aagcaagcaa	gaattctgaa	51180
tgctatgtag	ccagagatcc	ctgtgaccca	ccaggaaccc	cagaaccaat	aatgggttaa	51240
agaaatgaaa	tcactttaca	gtggaccaaa	cctgtgtatg	atggtggaag	tatgattaca	51300
ggctacattg	tagagaaacg	tgatttgcct	gatggctggt	ggatgaaagc	tagctttaca	51360
aatgtcattg	aaactcaatt	tactgtgtca	ggtcttactg	aagatcaaag	atatgaattc	51420
agagtcattg	caaagaatgc	agctgggtga	ataagtaaac	cctctgacag	tactggacca	51480
ataactgcca	aggatgaggt	tgaactccca	agaatttcaa	tggatccaaa	attcagagac	51540
acaattgtgg	taaatgtctg	agaaacattc	agacttgagg	ctgatgtcca	tggaaagccc	51600
ctacctacca	ttgagttggt	aagaggagat	aaggaaattg	aagaatctgc	tagatgtgaa	51660
ataaagaaca	cagatttcaa	ggctttactt	attgtaaaag	atgcaattag	aattgatggt	51720
gggcagtata	ttttaagagc	ttccaatggt	gcagggttcta	agtcattccc	agtaaagtga	51780
aaagtattag	atagaccagg	acctccagaa	gggccagtc	aggttactgg	agtcacttct	51840
gaaaaatgct	ctttaacatg	gtctccacca	cttcaagatg	gtggcagtga	cattttctcac	51900
tatgtttgtg	aaaagcgaga	aaccagtcga	cttgccctgga	ctggttgttg	ttcagaagtt	51960
gtgaccaatt	ctctgaaagt	taccaaactc	ttagaaggta	atgaatatgt	tttccgtata	52020
atggctgtca	acaaatatgg	tggtggagag	cctttggaat	ctgcaccagt	actaatgaaa	52080
aatccatttg	tgcttcctgg	accaccaaaa	agcttggaag	tcacaaatat	tgccaaagac	52140
tccatgaccg	tctgttggaa	ccgtccagat	agtgtagggt	gaagtgagat	tattggttac	52200
attgtagaga	aaagagacag	aagtggcatt	cgatggataa	aatgtaataa	acgccgcatt	52260
acagatttgc	gtctaagagt	gacaggatta	acagaagatc	atgagtatga	attcaggggtc	52320
tctgcagaaa	atgctgctgg	agttggggaa	ccaagtccag	ctacagttta	ttataaagcc	52380
tgtgatcctg	tgttcaaacc	tggtccacct	accaatgcac	acattgtaga	caccactaaa	52440
aattcaatca	cacttgcctg	gggtaaaccc	atctatgatg	gcggcagtga	gatcttggga	52500
tatgtagtag	aaatctgtaa	agcagatgaa	gaagaatggc	aaatagttac	tccacagact	52560
ggcctgagag	tcactcgatt	tgaaatttca	aaactcactg	aacaccaaga	gtataaaaata	52620
cgagtctgtg	ccctcaacaa	agttggttta	ggtgaggcta	catcagttcc	tggtactgtg	52680
aaaccagaag	ataaacttga	agcacctgaa	cttgaccttg	actccgaatt	aagaaaagga	52740
attgttgtaa	gagctgggtg	atctgccaga	attcacattc	cattcaaagg	tcgtccaatg	52800
cctgagatca	cttgggtctg	agaggaaggt	gaattcacag	ataaggtcca	aattgaaaaag	52860
ggagtaaact	atacccaact	atcatagat	aactgtgata	gaaatgatgc	tggaaaaatac	52920
attcttaagt	tggaaaacag	cagtggatca	aagtctgctt	ttgtaactgt	gaaagttctt	52980
gacactccag	gaccaccaca	gaatttggca	gtcaaagaag	tgagaaaaga	ttctgccttc	53040
ctggtatggg	agccacccat	cattgatgga	ggggcaaagg	tcaagaacta	tgtgattgac	53100
aaacgtgagt	caaccagaaa	agcgtatgct	aatgtgagta	gtaaattgcag	caaaacaagt	53160
tttaaagtgg	aaaaccttac	agaaggagcc	atttattact	tcagagtcat	ggctgaaaaa	53220
gaatttggag	tggtgtttcc	agtggaaaact	gttgatgccg	tgaaagctgc	tgaacctcct	53280
tccccaccag	gaaagggttac	actcactgat	gtgtcccaga	ccagtgcatac	acttatgtgg	53340
gagaaacctg	aacatgatgg	cggtagcaga	gtcctggggg	acgttgttga	aatgcagccc	53400
aaaggaactg	aaaaatggag	cattgtggct	gaatccaaag	tctgtaatgc	agttgttact	53460
ggtttgagtt	ctggacaaga	atatcagttc	cgtgtcaagg	cttataatga	gaaaggaaaa	53520
agcgatccaa	gagtgttggg	tgttcctgtc	atagccaagg	acttgactat	acagcctagt	53580
ttaaagttac	catttaacac	atatagtatc	caagctggag	aagatcttaa	aatagaaatt	53640
ccagttatag	gccgaccaag	acctaacatt	tcttgggtca	aagatgggtga	gcctcttaaa	53700
cagacaacaa	gagtaaactg	tgaagaaaca	gctacctcaa	ctgttttgca	cattaaagaa	53760
ggtaacaaaag	atgacttttg	aaaatacacc	gtaacggcaa	caaatagtgc	aggcacagca	53820
acagaaaatc	tcagtgttat	cgttttagaa	aagcctggac	ctccagttgg	cccagttcgg	53880
tttgatgaag	ttagtgcaga	ctttgtagtc	atatcttggg	aacctccagc	ctatactggt	53940
ggctgccaaa	taagcaacta	cattgtagag	aagcgagata	caaccaccac	cacttggcac	54000
atggtatcag	caacagttgc	aagaacaaca	attaaaataa	ccaaactgaa	aacaggcacg	54060
gagtaccagt	ttagaatttt	tgctgaaaac	aggtatggaa	aaagtgcctc	actggattct	54120
aaggcagtta	ttgtacaata	tccatttaaa	gaacctggac	cacctggaac	tccttttgtg	54180
acatcaatct	caaaagatca	gatgcttgtg	caatggcatg	agccagtga	tgatggaggc	54240
acaaaaatta	ttggctacca	tcttgaacag	aaagaaaaga	acagtatttt	atgggtcaag	54300

ttaaataaga	ccccattca	ggacacaaaa	ttcaaaacaa	ctgggcttga	tgagggcctt	54360
gagtatgagt	tcaaagtctt	tgctgaaaat	attgttggca	ttggcaagcc	tagcaaagt	54420
tcagaatgct	ttgttgctcg	tgatccatgt	gacccacctg	gtcgccctga	agccattgtt	54480
attacaagaa	acaatgtcac	actgaaatgg	aagaaacctg	cctatgatgg	tggtagcaaa	54540
ataacagggt	atattgtaga	aaagaaagat	ctacctgatg	gccgctggat	gaaagccagc	54600
tttaccacacg	tattagaaac	tgaattttaca	gtgagtgggac	ttgtagaaga	ccaaagatat	54660
gaatttagag	taattgcaag	aaatgcagct	ggaaacttta	gtgaaccatc	tgatagtagt	54720
ggtgccatta	ctgcaagaga	tgaatttgat	gcaccaaattg	cctctctgga	tccaaaatat	54780
aaagatgtca	tcgttggttca	tgcaggagag	acttttgttc	ttgaagccga	catccgtggc	54840
aaacctatac	ctgatgttgt	ttgggtcaaaa	gatggaaaag	aacttgaaga	aacagctgct	54900
agaatggaaa	ttaaatctac	tattcagaaa	acaactcttg	ttgtcaaaaga	ctgtatacgg	54960
actgatggag	gacaatatat	tctgaaactc	agcaatgttg	gtgggtacaaa	gtctataccc	55020
atcactgtaa	aggtacttga	caggccaggg	tctctgaaag	ggcctctgaa	agttactgga	55080
gttactgcgg	aaaaatgtta	cctggcatgg	aaacccacctt	tgcaagatgg	tggtgtcta	55140
atttcacatt	acatcattga	aaagagggag	acaagccgac	tctcttggac	ccaggtttca	55200
actgaggtac	aggcccttaa	ctacaaagtt	actaaacttc	ttcctggtaa	tgagtacatt	55260
ttccgtgtca	tggctgtgaa	taaatatgga	attggagagc	ccttggaaatc	tgggcctgtt	55320
acggcctgta	atccttataa	gccaccaggt	cctccctcaa	cacctgaagt	ctcagcaatc	55380
accaaagatt	ctatggtagt	aacatgggca	cgcccagtag	acgacggagg	taccgaaatt	55440
gagggctaca	ttcttgaaaa	acgagataag	gaaggcggtta	gatggacca	gtgcaacaag	55500
aaaacattaa	cggatctgcg	gctcagggtta	actggtctta	ccgaaggcca	ttcctatgaa	55560
ttcagagttg	ctgctgaaaa	tgcagctggt	gtggggagaa	ctagttagcc	atctgttttc	55620
taccgtgcgt	gtgatgcctt	gtatccacca	ggtcccccaa	gcaatccaaa	agtgaaggac	55680
acttccagat	cttctgtctc	cctggcatgg	agtaagccaa	tttatgatgg	tggcgcacct	55740
gttaaaggct	atgttgtaga	ggtcaaagaa	gtgctgctgg	atgaatggac	aaactgcact	55800
ccaccaacag	gattacaagg	aaagcagttc	acagtgacca	agcttaaaga	aaacactgaa	55860
tataacttcc	gtatttgtgc	catcaattct	gaagggtgtag	gtgaacctgc	aactctacct	55920
ggctcagtg	ttgctcagga	gaggatagag	ccaccagaaa	tagaactcga	tgctgatctc	55980
agaaaagggtg	tcgttctgcg	tgcaagtgc	actttacgct	tatttgtcac	tatcaaagg	56040
cgaccagaac	ccgaagttaa	atgggaaaaag	gcagaaggca	ttctcactga	cagggtctag	56100
atagaggtga	ccagctcatt	tacaatgttg	gtgattgata	atgttaccag	atgtgacagt	56160
ggtcgggtata	atctgacatt	agaaaataat	agtggctcca	aaacagcttt	tggttaacgtc	56220
agagttcttg	actcaccaag	tgccccctgtg	aatttgacca	taagagaagt	gaagaaaagac	56280
tcagtgcagt	tgctctggga	accaccactt	attgatgggtg	gagctaagat	tacaaactac	56340
attgtcga	aacgagaaac	tacaagaaaa	gcttatgcta	ccattacaaa	taattgcact	56400
aaaactactt	tcagaattga	aaatctacaa	gaaggatggt	cttactactt	ccgagtcttg	56460
gcttccaatg	aatatgggat	tggttttgcca	gctgaaacaa	cagaacctcg	taaagtgtct	56520
gaaccacccc	tcccacctgg	aagagtaact	cttggtgatg	tgacctgtaa	tacagctaca	56580
attaagtggg	agaaaccaga	aagtgatggt	ggcagcaaaa	ttactgggtta	tggtggttga	56640
atgcagacta	aagggagtg	aaagtggagc	acctgcacac	aagttaaagac	tctagaagca	56700
actatatctg	gcttaactgc	aggagaagag	tatgtcttca	gggtagctgc	agttaacgaa	56760
aagggaagaa	gtgatccaag	acaacttgga	gtgccagtaa	ttgcaaggga	tattgaaata	56820
aagccttcag	ttgagcttcc	tttccatact	ttcaatgtaa	aggctagaga	acaacttaag	56880
attgatgtgc	cattcaaagg	aagacctcaa	gctactgtga	actggagaaa	agatggtcag	56940
actcttaaag	agacaactag	agtcaatggt	tcttcttcaa	agactgtaac	atcactatct	57000
attaaggaag	cttcaaagga	agatgttgga	acttatgaat	tatgtgtttc	aaacagtgct	57060
ggatccataa	cagttcctat	tactataatt	gtccttgaca	gaccaggacc	tccagggtcct	57120
atacgtattg	atgaggttag	ttgtgacagc	ataaccattt	cttggaatcc	tccagaatat	57180
gatggtggct	gccaaattag	caattacatt	gttgaaaaga	aagaaaccac	ctctacaaca	57240
tggcacatag	tttcacaagc	agttgcaaga	acatccatta	aaatagttcg	cctgacaaca	57300
ggaagtga	atcagttccg	tggttgtgca	gaaaaccgct	atggaaaagag	ctcctacagt	57360
gaatcttcag	ctgttggttc	agagtatcca	ttcagtcctc	caggctcctc	tggtactcct	57420
aaagttgtgc	atgccacaaa	atctaccatg	cttgtaacct	ggcaagtgcc	agttaatgat	57480
ggaggaagtc	gagtaattgg	ctatcatctt	gagtataaag	aaagaagcag	cattcttttg	57540
tcaaaagcaa	ataaaatcct	cattgtctgat	actcaagtga	aagtctccgg	ccttgatgaa	57600
ggactgatgt	atgagtatgc	tgtatatgct	gaaaatattg	ctggaattgg	taaatgcagt	57660
aaactctgtg	aaccagtcct	tgcaagagat	cctgttgacc	ctcctggaca	acctgaagtc	57720
acaaatatca	caagaaaatc	agtgtcactt	aaatgggtcta	aaccacatta	tgatggtgga	57780

gctaagatca	caggatacat	tgttgaacgc	agagaactac	cagatggccg	gtgggctaaag	57840
tgcaattata	ctaatacata	agaaacatac	tttgaagtaa	ctgaacttac	tgaagatcag	57900
cgttatgaat	tccgggtttt	tgcaaggaa	gtgctgact	cagttagtga	gccatctgaa	57960
tccactgggc	ctattatagt	taaagatgat	gttgagcctc	caagagttaa	gatggatgtc	58020
aagttccgag	acgttattgt	tgtcaaagct	ggagagggtc	ttaagataaa	tgcagacatt	58080
gcagggcgac	ctctgccagt	aatttccttg	gccaaaggat	gtatagaaat	tgaagaaaga	58140
gcaagaacag	aatcatctc	aacagacaat	catactttgt	taacagttaa	agactgtata	58200
agacgagaca	ctgggcaata	tgtactaaca	ctgaagaatg	ttgccggcac	tcgggtctgt	58260
gccgttaatt	gcaaaagtact	tgataagcct	ggtccaccag	caggaccact	tgaaataaat	58320
ggcctcactg	ctgagaaatg	ctctctttcc	tggggacgtc	cccaagaaga	tgggtggtgca	58380
gatatcgact	attaccatcg	taaaaaacgt	gaaacaagcc	accttgcatg	gacaatatgt	58440
gaaggagagt	tacagatgac	atcctgtaaa	gtaaccaagt	tactcaaagg	caatgaatat	58500
atatttagag	taactggtgt	taataaatat	ggtgttggtg	agcccctaga	gagtgtagct	58560
ataaaggcac	tagatccatt	tacagttcca	agtcacacca	cgtcttttga	aattacttct	58620
gtgaccaaag	aatctatgac	actttgctgg	tcaagaccgc	agagtgatgg	aggtagtgaa	58680
atatctggat	atataattga	aaggcgagag	aaaaatagcc	taagatgggt	gcgtgtaaac	58740
aaaaaaccag	tttatgatct	aagagtgaag	tcaacaggac	ttcgggaagg	atgtgaatat	58800
gaatatcgtg	tttatgcaga	aaatgctgct	ggcctaagtc	ttccaagtga	aacctctccc	58860
ttaattaggg	cagaagatcc	agtgttccta	catctctctc	catccaaacc	caaaattgtg	58920
gactcaggca	agacaactat	aactattgct	tgggttaagc	cgctgtttga	tgggtggggcc	58980
ccgataactg	gatatactgt	agaatacaaa	aaatctgatg	acactgactg	gaaaacttcc	59040
attcagagct	tacgagggac	agaatataca	ataagcggac	taacaacagg	agctgaatat	59100
gttttcagag	taaaatctgt	caataaggtt	ggtgctagtg	accccagtga	tagctctgac	59160
cctcagatag	caaaggaaag	agaagaagaa	cttttatttg	atattgacag	tgaaatgagg	59220
aagacccttg	ttgtcaaggc	tgggtcctca	tttaccatga	ctgtgccttt	ccgaggaaga	59280
ccagtaccca	atgtcttgtg	gagtaagcca	gacactgacc	tccgtactag	agcttatgtt	59340
gataccacag	actctctgtc	atcactgacc	attgaaaatg	ccaacagaaa	tgactctgga	59400
aagtacacat	taacaattca	gaatgttttg	agtgtctgct	cactgacctt	agttgtcaaa	59460
gttttagata	cccaggttcc	tccaaccaac	attactgtgc	aagatgtaac	caaagagtct	59520
gcagtgttat	cctgggatgt	tccctgaaaac	gatggtggag	caccagtga	gaattaccac	59580
atagaaaaac	gtgaggccag	caagaaagca	tgggtctctg	tgaccaacaa	ctgtaaccgc	59640
ctctcctaca	aagttacca	tttacaagaa	ggagctatct	attacttcag	agtctctgga	59700
gaaaatgagt	ttggtgttgg	tataccagct	gaaacaaagg	aaggagttaa	aataacagaa	59760
aaaccaagcc	cactgaaaa	acttggagta	acaagtatat	ccaaagacag	tgtttccctg	59820
acctggctga	agcctgaaca	tgatggcgga	agcagaattg	tacactatgt	cgttgaagca	59880
ctagaaaaag	gacagaaaa	ctgggttaaa	tgtgcagtgg	caaagtcaac	ccatcacgtt	59940
gtttccgggtc	tgagagagaa	ttctgaatac	ttttcccgag	tgtttctgta	aatcaagct	60000
ggcctgagtg	acccgagaga	gcttctgctt	cctgttctta	ttaaggagca	actagaacca	60060
cctgaaattg	atatgaagaa	tttcccaagt	cacactgtat	atgttagagc	tggttcaaac	60120
cttaaagttg	acattccaat	ctctggaaaa	ccacttccca	aagtgtacctt	atcaagagat	60180
ggtgtcccc	ttaaggcaac	catgagattt	aataccgaaa	ttactgtctga	gaacctgacc	60240
atcaatctca	aagaaagtgt	tacagctgac	gctgggagat	atgaaatcac	tgctgccaac	60300
tccagtggta	caaccaaaag	tttcattaac	attgttgtgc	tagacaggcc	tggctcctcca	60360
actggccctg	ttgttattag	tgatataact	gaagaaagtg	tgactctcaa	atgggagcca	60420
cctaagtatg	acggtggaag	tcaagttacc	aactacattc	tactcaaaag	agaaacaagt	60480
actgcagtgt	ggactgaagt	gtctgcaaca	gttgcaagaa	ccatgatgaa	agtcataaaa	60540
ctgaccacag	gagaagaata	ccaattccgc	atcaaggcag	aaaaccgctt	tggcatcagt	60600
gatcatatag	attcagcttg	tgtgactgtc	aaactaccat	acacaacacc	tggaccacca	60660
tctacaccat	gggtcactaa	tgttactcga	gaaagcatca	ctgtgggctg	gcatgaacca	60720
gtgtcaaatg	gaggcagtgc	agtcgttagc	tatcacctgg	aatgaaaga	cagaaacagt	60780
attttatggc	aaaaagccaa	caaactggct	atccgcacaa	ctcacttcaa	agtcacaaca	60840
atcagtgtctg	gacttattta	tgaattcagg	gtgtatgcag	aaaatgctgc	tggagtgtga	60900
aaacctagcc	atccttctga	accagtcttg	gcaattgatg	cttgtgaacc	cccaagaaat	60960
gttcgtatca	ctgatatttc	aaagaactct	gtcagccttt	catggcaaca	accagctttc	61020
gatggaggta	gcaagattac	aggctacatt	gttgagagac	gtgaccttcc	agatggcaga	61080
tggaccaagg	ccagcttcac	caatgttact	gaaactcaat	tcaccatctc	tggcttgact	61140
cagaattccc	agtatgaatt	ccgtgtcttt	cttaggaatg	ctgttggttc	cattagcaat	61200
ccatctgagg	ttgtagggcc	cattacttgc	atcgattctt	atggtggtcc	tgtaatgtat	61260

ttgcctctag	aatatacaga	agttgtcaaa	tacagagcag	gtacatctgt	gaagctcaga	61320
gctggcattt	ctggcaaac	tgcgcctact	attgagtggt	ataaagatga	taaagaatta	61380
caaaccaatg	cactgggtgtg	tgttgaaaaat	accacggacc	tcgcatctat	actcatcaaa	61440
gatgccgcatc	gccttaatag	tggatgctat	gaattaaaac	taaggaatgc	catggcgctca	61500
gcctcagcca	ccatcagagt	acagatcctt	gacaaaccag	gcccacctgg	tggaccaatt	61560
gaattttaaga	ctgtaactgc	tgagaagatc	acccttctct	ggcggcctcc	agctgatgat	61620
ggtggtgcaa	aatcactca	ctacattgtg	gaaaagcgtg	agacaagccg	cgttgtgtgg	61680
tctatggtgt	ctgaacattt	ggaagagtgc	atcattacaa	ccaccaaaat	tatcaaagga	61740
aatgaataca	tcttccgggt	ccgagccgtg	aacaaatatg	gaattggcga	gccactggaa	61800
tctgattccg	ttgtagccaa	gaacgcattt	gttacacctg	ggccaccagg	cataccagaa	61860
gtgacaaaga	ttaccaagaa	ttcgatgact	gttgatgga	gcaggccaat	tgcagatggc	61920
ggtagtgtata	taagtggcta	tttccttgaa	aaacgagaca	agaagagcct	aggatggttt	61980
aaagtactaa	aagagactat	ccgtgacacc	agacaaaaag	taacaggact	cacagaaaaa	62040
agtgactatc	ctgtgagagt	ttgtgctgta	aacgctgctg	gacagggtcc	attttctgaa	62100
ccatctgaat	tctacaaagc	tgctgactct	attgatcctc	cagggtccacc	tgctaagata	62160
agaatcgcag	attcaaccaa	gtcatccatc	acccttggct	ggagtaagcc	tgtctatgat	62220
gggggcagtg	ctgttactgg	gtatgttgtc	gagataagac	aaggagagga	agaggaatgg	62280
actactgtct	ctaccaaagg	agaggtcaga	actacagaat	atgtggtatc	caacctgaaa	62340
cctggagtca	attactactt	ccgggtatct	gtgttaaact	gtgctggaca	aggagaacct	62400
atagaataga	atgaacctgt	acaagctaaa	gatatacttg	aggcaccaga	gattgacctg	62460
gatgtggctc	tcagaacttc	tgttattgcc	aaagctgggtg	aagatgtaca	agtgttgatt	62520
cccttttaaag	gcagacctcc	acctactgtc	acatggagaa	aagatgagaa	gaatcctggc	62580
agtgatgccca	gatacagcat	tgaaaacact	gattcatcct	cattactcac	cattcctcaa	62640
gttactcgca	atgatacagg	aaaatatatt	ctcacaatag	aaaatggagt	tggtgaacct	62700
aagtcttcaa	ctgtgagtgt	taaagtgcct	gacacaccag	ctgcctgccca	gaaactacag	62760
gttaaacaatg	tttctcgagg	cacagtcact	ttgctctggg	atcctcctct	cattgatgga	62820
ggatctccaa	taattaatta	tgtcattgaa	aagagagatg	ccaccaagag	aacatggctc	62880
gtcgtgtcac	acaaatgttc	tagcacatcc	ttcaagctaa	tagatttgtc	ggagaagact	62940
ccattcttct	tcagagttct	tgcagaaaaa	gaaattggaa	ttggggaacc	ctgtgaaact	63000
acagagccag	tgaaggctgc	tgaagtacca	gtcctatac	gtgatctctc	aatgaaagac	63060
tcaacaaaga	catctgtcat	cctcagctgg	accaaacctg	actttgatgg	tggtagcgtc	63120
atcacagaat	atgttgtaga	aaggaaaggt	aaaggtgaac	agacgtggtc	ccacgctggc	63180
ataagtaaga	catgtgaaat	tgaggttagc	caacttaagg	agcagtcagt	cctggagttc	63240
agagtgtttg	ccaaaaatga	gaaaggactg	agtgatectg	tcactattgg	gccaattaca	63300
gtgaaagaac	tattattac	acctgaagtt	gacctgtcag	atatccctgg	ggcacaagtc	63360
actgtgagaa	ttgggcacaa	tgtgcacctt	gaattacctt	ataagggaaa	acccaaacca	63420
tccatcagtt	ggctgaaaga	tggcttgcca	ctgaaagaaa	gtgaatttgt	tcgcttcagt	63480
aaaactgaaa	acaaaattac	tttgagtatt	aagaatgcca	agaaggagca	tggaggaaaa	63540
tacactgtta	ttcttgataa	tgcagtgtgt	agaattgcag	tccccattac	agtcatcacc	63600
cttggcccac	catcaaagcc	caaaggaccc	attcgatttg	atgaaatcaa	ggctgatagt	63660
gtcatcctgt	catgggatgt	acctgaagat	aatggaggag	gagaaaattac	ttgttacagc	63720
atcgagaagc	gggaaacttc	acaaactaac	tggaaagtgg	tgtgttcaag	tgttgccaga	63780
acgactttca	aagtccctaa	tctagtcaaa	gatgctgaat	accagtttag	agtgagagca	63840
gaaaacagat	acggagtcag	ccaaccactt	gtctcaagca	ttattgtggc	aaaacaccag	63900
ttcaggattc	ctggtccccc	aggaaaagcca	gttatataca	atgtgacttc	tgatggcatg	63960
tcactaactt	gggatgtctc	agtttatgat	ggtggttcag	aagttactgg	attccatggt	64020
gaaaagaaaag	aaagaaatag	catcctctgg	caaaaagtta	atacatcacc	aatctctgga	64080
agagaatata	gagccactgg	actggtagaa	ggtctggatt	accaattccg	tgtatatgct	64140
gaaaattctg	ctggcctaag	ctcacctagt	gacccaagca	aatttacctt	agctgtttct	64200
ccagtagacc	cacctggcac	tcttgactac	attgatgtca	cccgggaaac	catcacactt	64260
aaatggaacc	caccattgcg	tgatggaggc	agtaagattg	tgggctatag	cattgaaaaa	64320
cggcaaggaa	atgaacgctg	ggtgagatgc	aactttactg	acgtcagtga	atgtcagtac	64380
acagttacag	gactcagtc	tggggatcgc	tatgagttca	gaataattgc	aagaaatgct	64440
gttggaaacta	taagcccgcc	ctcacagtct	tctggcatta	ttatgacaag	agatgaaaat	64500
gttccaccaa	tagtagagtt	tggccctgaa	tactttgatg	gtctcattat	taagtccgga	64560
gagagcctta	gaattaaagc	tttgggtacaa	ggaagaccag	tgccctcagat	aacttgggtc	64620
aaagatggag	tggaaatcga	aaagaggatg	aatatggaaa	taaccaacgt	acttggatcc	64680
accagcctat	ttgttagaga	tgctactcgg	gaccatcgtg	gtgtatacac	agtgggaagcc	64740



aaaaatgcat ctggttctgc aaaagcagaa attaaagtga aagtacaaga tacaccagga 64800
aaagtagttg ggccaataag attcaccaat attactgggg agaagatgac tctgtggtgg 64860
gatgcccac tcaatgacgg ttgtgctccc ataaccact acatcattga aaaacgggaa 64920
accagcagac ttgcctgggc actaatgtag gataaatgtg aagcccaaag ttactactgcc 64980
attaaactaa taaacggcaa tgaataccaa ttccgtgttt ctgcagttaa caagtttggg 65040
gttggcaggc cacttgattc tgatccagtg gttgctcaaa tacaatatat tgttcctgat 65100
gcccctggca ttccagaacc tagcaacata acaggcaaca gcattaccct gacatgggca 65160
aggccagaat cagatgggtg cagtgaatt caacagtata tccttgaaag aagagaaaag 65220
aaaagcacia gatgggtaaa agtgcacagc aaacgaccaa tctctgaaac aagattcaaa 65280
gtcactgggtc tgacagaagg caatgagtat gaattccatg tcatggctga aaatgctgca 65340
ggagttggac ctgcaagtgg catctcaaga ctcatataat gtagagagcc cgtcaacca 65400
ccaggtcctc ccacagtggg caaagtaaca gacacatcaa agacaactgt gagcttagaa 65460
tggtcctaac cagtgtttga tgggtggcatg gaaataattg ggtatattat tgaaatgtgt 65520
aagaccgact taggagactg gcacaagggt catgtgtgaa aacaagatat 65580
acagtcactg atctacaagc aggtgaagaa tacaatttcc gagttagtgc tatcaatggg 65640
gctggaaaag ggcacagctg tgaagtgact ggcacaatta aagcagttga ccggttaaca 65700
gctcctgagt tagacataga tgcaaaacttc aaacagactc atgttggttag agctggggcc 65760
agtattcgcc tcttcattgc ctaccaaggt agacctactc ctacagctgt gtggagcaaa 65820
ccagactcta accttagcct tcgggctgat atccatacaa cagattcctt cagcacctc 65880
actgtgaaa actgcaacag aaatgatgca tgggaaatata cccttactgt ggaaaaaac 65940
agtggtagta agtcaatcac attcacctg aaagtgtag aactccagg cccacctggc 66000
ccaattacct tcaaagatgt gacccgggga tctgtacat tgatgtggga tgccctctt 66060
cttgacggtg gtgcccgaat ccatcattat gtggtagaga aacgagaggc aagtcgccgt 66120
agttggcagg ttatcagtga aaaatgcact cgtcagatct tcaaggtcaa tgacctggc 66180
gaagggttc cgtactatct ccggttttct gcagtaaatg agtatgggtg tggtagccc 66240
tatgaaatgc cagaaccaat tgtagccagc gaacagcctg ctccacctag gagacttgat 66300
gttgttgata ctagcaaatc ctccgcagtc ttagcttggc ttaaactga ccacgatgga 66360
ggcagccgga tcaactggct cctgcttgaa atgagacaaa agggatctga cctctgggtt 66420
gaagctggtc acaccaaaca gctaactttc acagtagagc gtcttgttga gaaaactgaa 66480
tatgaattcc gtgtgaaggc caagaatgat gctggctata gtgaaccag agaagcctc 66540
tcttctgtca tcatttaagg gcccaaatc gagccactg ctgacctac tggaaattac 66600
aatcagctta taacttgcaa agcaggaagc ccatttacc ttgacgtacc aatcagtggt 66660
cgtcctgccc ccaaagtaac atggaaactg gaagaaatga gacttaaaga gacagatcga 66720
gtgagcatta caacaacaaa agacagaacc acactgactg taaaggacag catgagagg 66780
gactctggaa gatacttctt gacctggaa aatacagctg gtgttaaaac atttagcgtc 66840
acagttgttg tcaattggaag cccaggtcca gatcccgcc ccattgaggt ctcatctgtc 66900
tcagctgaat cgtgtgtcct gtcatgggga gaacctaaag atggaggagg cactgaaatt 66960
actaattaca tagttgaaaa gcgtgaatcg ggtacaacag cttggcagct tgtcaattcc 67020
agtgtcaagc gcactcaaat taaagtcact catctocaaa aatacatgga atattctttc 67080
cgtgtcagtt cagagaacag atttggtgtc agcaaacctc tagaatcagc accaataatt 67140
gctgaacatc catttgtccc accaagcgt cctaccagac ctgaggtcta ccatgtgtct 67200
gccaatgcca tgttatttcg ttgggaagaa atggtggcag taaatcatt 67260
ggctactggg ttgagaagaa agaactaat acaattcttt ggggtgaaaga aaacaaagt 67320
ccatgcttag agtgcaacta caaagtaact ggtttagtag aaggactgga atatcagttc 67380
agaacttatg cactcaatgc tgcaggtgtt agcaaggcca gcgaagcttc aagacctata 67440
atggctcaaa atccagttga tgcaccaggc agaccagagg tgacagatgt cacaagatca 67500
acagtatcac tgatttggtc tgcccagcg tatgatggag gcagcaaggt tgtgggctac 67560
atcatagagc gtaagccagt cagtgaagta ggagatgggtc gctggctgaa gtgcaactac 67620
accattgtat ctgacaattt ctccaccgtg actgctctca gtgaaggaga cacttatgag 67680
ttccgtgtgt tagccaagaa tgcagcagcg gtaattagca aagggtctga atctacaggc 67740
cctgtcactt gccagatga atacgtcca cccaaagcgg aactggatgc ccgattacac 67800
gggtatctgg ttacatcag agcaggttct tggtatgctg tggatgctgc agtttggtggc 67860
aaacctgaac ccaaaattat ctggacaaa agctagatct ctgtgaaaaa 67920
gtctctttgc agtatactgg caaacgagca actgctgtga tcaagttctg tgacagaagt 67980
gacagtggaa aatacacttt aacagtgaat aatgccagcg ggaccaaggc cgtgtctgtc 68040
atgggtcaaag tgcttgattc ccctggccca tgtggaaagc tcaccgtcag cagagtaaca 68100
caggagaagt gcacttttag ctggagcctt ccgcaggaag acggaggagc agaaatcact 68160
cactacatcg tggaaagacg cgagactagc aggtcactt gggtgattgt tgaaggcgaa 68220

tgcccaaccc	tatcctatgt	cgttaccagg	ctcatcaaga	acaatgagta	catattccga	68280
gtgagggcag	taaacaaata	tggccctggt	gtgcctgttg	aatcagagcc	aattgtagcc	68340
agaaactcat	tcactattcc	atcaccaccc	ggcatacctg	aagaagttag	gactggcaaa	68400
gagcatatca	tcatttcagt	gacaaaacct	gaatctgatg	gtggcaatga	aatcagcaac	68460
tacctagtag	acaaacgtga	gaaggagagc	ctgcgctgga	cacgtgtcaa	caaagactat	68520
gtggtgtatg	ataccaggct	gaagggtgacc	agcctgatgg	aggggtgtga	ttaccagttc	68580
cgggtgaccg	cagtgaatgc	agctggtaac	agtgaagccc	gcgaacgttc	caacttcata	68640
tcatgcagag	aaccatcata	tacccttgga	ccaccttctg	ctccaagagt	tgtggatacc	68700
accaaacaca	gcattagttt	ggcatggacc	aaacccatgt	acgatggtag	tactgacatt	68760
gtaggatatg	ttctggaaat	gcaagagaag	gacactgata	agtggtagcg	agtgcatacc	68820
aatgccacaa	taagaaatac	tgaattcact	gtgccagacc	ttaaaatggg	ccagaaatat	68880
tccttcagag	ttgctgccgt	gaacgtgaag	ggtatgagcg	aatacagcga	atcaattgct	68940
gaaattgagc	ccgtggaaag	aatagaaata	ccagatcttg	agcttgacga	tgatctaaag	69000
aagactgtga	ccatcagggc	tggggcctcg	ttgcgcttga	tgggtgtctg	atctggaaga	69060
ccacctcctg	tcataacgtg	gagcaagcag	ggcattgacc	ttgcaagccg	ggcaattatt	69120
gacaccactg	agagctactc	attgctaata	gtggacaaag	ttaatcggtg	cgatgctgga	69180
aaatacacaa	ttgaagctga	aaaccaatct	ggcaagaaat	cagcaacagt	ccttggttaa	69240
gtctatgata	ctcctgggtc	ctgtccttca	gtgaaagtta	aggaagtatc	aagagattct	69300
gtgactataa	cttgggaaat	tcccacgatt	gatggtagag	ctccaatcaa	caattacatc	69360
gttgataagc	gtgaagctgc	tatgagagca	ttcaaaacag	taactaccaa	atgcagcaag	69420
acactttaca	gaatttcttg	acttgtagaa	ggaacatgac	actatttcag	agtgtctgca	69480
gaaaatatct	atggcattgg	agaaccttgt	gaaacatctg	atgcagtact	ggtctcagaa	69540
gtgccttttg	tgctgcaaaa	gctagaagtg	gtcgatgtca	ccaaatccac	tgttaccctt	69600
gcctgggaaa	aaccactcta	cgatgggtgt	agccgactca	ctggatatgt	tctcgaggcc	69660
tgcaaaagct	gcacagagag	atggatgaag	gttgtcacct	taaaaccac	agtcctagag	69720
cacactgtta	cttctttaa	tgaagtgaa	caatacttat	ttagaataag	ggcacaaaat	69780
gagaaagggt	tgacagaacc	aagagagact	gtcacagccg	tgactgtaca	agacctcaga	69840
gtgttgccaa	caatcgatct	ttctacaatg	cctcagaaga	ccatccatgt	cccagctggc	69900
agaccagtag	agctggtgat	acctattgct	ggccgtccac	ctcctgctgc	ttcctgggtc	69960
tttgctggtt	ctaaactgag	agaactcagag	cgtgtcacag	ttgaaactca	cactaaagta	70020
gctaaattaa	ccatccgtga	aaccactatc	agagatactg	gagaatacac	acttgaattg	70080
aagaatgtta	ccggaactac	ttcagaaacc	attaaagtta	tcattcttga	caagcctggg	70140
ccaccaacag	gacctattaa	gattgatgaa	attgatgcta	catcaattac	catttcctgg	70200
gaaccacctg	aattggacgg	tggtgctcca	ctgagtggtt	atgtggtaga	acaacgtgac	70260
gctcactgct	caggatggct	gcccgtttct	gaatcagtga	ctaggtccac	gtttaagttt	70320
accagactca	ccgaaggaaa	tgagtatgtg	ttccgtgtgg	ctgcaacaaa	ccgcttcggg	70380
attggctctt	acttgacgac	tgaggtcata	gagtgtcgca	gcagcatccg	tattcctgga	70440
ccccagaaa	cattacagat	atttgatggt	ttccgtgatg	gcatgacact	tacttggtac	70500
ccaccagagg	atgacgggtg	ctcccaagtg	actggatata	ttgtggagcg	caaagaagtg	70560
agagcagatc	gatgggtccg	tgtaaataaa	gtacctgtga	caatgacacg	gtaccgctcc	70620
actggcctta	ctgaaggctt	agaatatgaa	caccgtgtca	cagccattaa	tgcaagaggg	70680
tctgggaaac	caagtctgct	ttccaaacc	atcgttgcca	tggatccaat	tgctcctcca	70740
ggaaagccac	aaaacccaag	agttactgat	acaacaagga	catcagtctc	cctggcctgg	70800
agtgttccag	aagatgaagg	aggatctaaa	gtcacaggct	acttgattga	aatgcaaaaa	70860
gtagatcaac	atgaatggac	caagtgtaac	accactccaa	ccaagattcg	agagtatact	70920
ctaacacacc	tacctcaggg	tgcaagaata	agggtccgcg	tcctagcttg	taatgctggt	70980
ggacctggtg	agcctgctga	ggtaccagga	acagtcaaag	tcactgaaat	gcttgaatat	71040
cctgattatg	aacttgatga	aagataccaa	gaaggatatc	ttgtaaggca	aggtggcgct	71100
atcagactta	ccataccaat	caaaggaaaa	ccattcccaa	tatgtaaatg	gaccaaggaa	71160
ggccaggata	ttagtaagcg	tgccatgatt	gcaacatctg	aaacacacac	tgagctttgt	71220
atcaaagaag	cagacagggg	tgattctggc	acttatgacc	tggttctgga	aaataaatgt	71280
ggcaagaagg	ctgtctacat	caaggtcagg	gtgataggaa	gtcccaacag	tccagaaggg	71340
ccactggaat	atgatgacat	ccaagtccgc	tctgtgaggg	tcagctggag	acctcctgct	71400
gatgatgggt	gtgctgacat	cttaggctac	atcctcgaga	gacgagaagt	gcctaaagcc	71460
gcctggtata	ccattgatct	cagagtccga	ggtacatctc	tgggtgtaaa	aggcctcaaa	71520
gagaatgtag	aataccattt	ccgtgtttca	gcagaaaacc	agtttggcat	aagcaaaccc	71580
ttgaaatctg	aggaaccagt	cacacaaaa	acaccattga	atcctccaga	acctccagc	71640
aatcctccag	aagtactcga	tgtaaccaag	agttctgtta	gcttgtcctg	gtcccggccc	71700

aaagatgatg	gtggttctag	agtcacaggc	tactacatcg	aacgcaaaga	gacatccact	71760
gacaagtggg	tcagacacaa	caagactcag	atcaccacca	caatgtacac	tgtcacaggg	71820
cttgttcccg	atgctgagta	tcagttccgc	atcatcgcac	agaatgatgt	tggcctgagt	71880
gagaccagcc	ctgcttctga	accagttggt	tgcaaagatc	catttgataa	accaagccaa	71940
ccaggagaac	ttgagattct	ttcaatatcc	aaagatagtg	tcactctaca	gtgggagaaa	72000
cctgaatgtg	atggtggtaa	agaaattctt	ggatactggg	ttgaatatag	acagtctgga	72060
gacagtgcct	ggaagaagag	caataaggaa	cgtattaagg	acaagcaatt	cacaatagga	72120
ggtttgctgg	aagctactga	gtatgaattc	agggtttttg	ctgagaatga	gactgggctg	72180
agcagacctc	gcagaactgc	tatgtctata	aagactaaac	tcacatctgg	agaggcccca	72240
ggaatacgca	aagaaatgaa	ggatgttacc	acaaaattgg	gtgaagctgc	tcaactctca	72300
tgccagattg	ttggaaggcc	tcttcctgac	attaaatggg	acagatttgg	taaagagctc	72360
atacaaagcc	ggaaatacaa	aatgtcttca	gatggacgca	cacacactct	tacagtaatg	72420
acagaggaac	aggaagatga	agggtgtttat	acctgcatag	ccaccaatga	ggttgagaaa	72480
gtagaaacca	gtagtaagct	tctctgcaa	gcaacaccgc	agttccatcc	tggttaccca	72540
ctgaaagaga	aatatttatgg	agctgtgggt	tcacacttcc	ggcttcatgt	tatgtacatt	72600
ggctgtccag	tacctgccat	gacttggttc	catggtcaga	aacttttgca	aaactcagaa	72660
aacattacta	ttgaaaacac	tgagcactat	actcatcttg	tcatgaagaa	tgtccaacgt	72720
aagactcatg	ctgggaaata	caaagtccag	ctcagcaatg	tttttggaac	agttgatgcc	72780
atccttgatg	tggaaataca	agataaaacca	gacaaaccta	caggaccaat	tgtgatcgaa	72840
gctctattga	actaactccgc	atgtatcagc	tggaaccac	ccgcagatga	cggaggctcc	72900
tggaatcacca	actatgtggg	ggaaaaatgt	gaggccaagg	agggggctga	atggcaattg	72960
gtgtcttcag	ccatctcagt	gacaacctgt	agaattgtga	acctcacaga	aaatgctggc	73020
tattacttcc	gggtttcagc	tcagaacact	ttcggcatca	gtgacctctc	agaagtgtcc	73080
tcagttgtga	tcattaagag	tccatttgaa	aagccagggtg	ctcctggcaa	accaactatt	73140
actgctgtca	caaaagattc	ttgtgttggt	gcttggaagc	cacctgccag	tgatggaggt	73200
gcaaagatta	gaaattacta	ccttgagaag	cgtgagaaga	agcagaataa	atggatttct	73260
gtgacaacag	aagaaattcg	agaaactgtc	ttttcagtga	aaaaccttat	tgaaggctct	73320
gaatacagat	ttcgtgtgaa	atgtgaaaat	ctaggtgggg	aaagtgaatg	gagtgaataa	73380
tcagaaccca	tcactcccaa	atctgatgtc	ccaattcagg	caccacactt	taaagaggaa	73440
ctgagaaatc	taaattgtcag	atatcagagc	aatgtactct	tggtctgcaa	agtgactggt	73500
catccaaaac	ctatcgtcaa	atggtacaga	caaggcaaaag	aaatcattgc	agatggatta	73560
aaatatagga	ttcaagaatt	taagggtggc	taccaccagc	tcattcattgc	aagtgtcaca	73620
gatgatgatg	ccacagttta	ccaagtcaga	gctaccaacc	aagggggatc	tgtgtctggc	73680
actgcctcct	tggaaagtgg	agttccagct	aagatacact	tacctaaaac	tcttgaaggc	73740
atgggagcag	ttcatgctct	ccgaggtgaa	gtggtcagca	tcaagattcc	tttcagtggc	73800
aaaccagatc	ctgtgatcac	ctggcagaaa	ggacaagatc	tcattgacaa	taattggccc	73860
taccaagtta	ttgtcacaaag	atccttcaca	tcacttggtt	tccccaatgg	ggtagagaga	73920
aaagatgctg	gtttctatgt	ggtctgtgct	aaaaacagat	ttggaattga	tcagaagaca	73980
gttgaactgg	atgtggctga	tgttcctgac	ccaccagag	gagtcaaagt	tagtgatgcc	74040
tcacgagatt	ctgtcaactt	aacatggact	gagccagcct	ctgatgggtg	cagcaaaaatc	74100
accaactaca	ttggtgaaaa	atgtgcaact	actgcagaaa	gatggctccg	tgtaggacag	74160
gcccagagaaa	cacgttatac	cgtgatcaac	ttatttggaa	aaacaagtta	ccagttccgg	74220
gtaatagctg	aaaataaatt	tggtctgagc	aagccttcag	agccttcaga	accaaccata	74280
accaagaag	ataagaccag	agctatgaac	tatgatgaag	aggtagatga	aaccagggaa	74340
gtctccatga	ctaaagcatc	tcactcttca	accaaggaac	tctatgagaa	atatatgatt	74400
gctgaagatc	ttgggcgtgg	tgagtttgga	attgtccatc	gttgtgttga	aacatcctca	74460
aagaagacat	acatggccaa	atttgttaaa	gtcaaaggga	ctgatcaggt	tttggtaaag	74520
aaggaaatct	ccattctgaa	tattgctagg	catagaaaca	tcttacacct	ccatgaatca	74580
tttgaaagca	tgggaagaatt	agttatgatc	tttgagttaa	tatcaggact	tgacatattt	74640
gagcgcatta	acacaagtgc	ttttgaaact	aatgaaagag	aaattgttaag	ttatgttcac	74700
caggtctgtg	aagcacttca	gtttttacac	agtcataata	ttggacactt	tgacattaga	74760
ccagaaaata	tcattttacca	aaccagaaga	agctctacca	ttaaaatcat	agaatttggt	74820
caagcccgtc	aggtgaaacc	aggggacaac	ttcaggcttc	tattcactgc	cccagaatac	74880
tatgcacctg	aagtccacca	gcatgatgtt	gtcagcacag	ccacagacat	gtgggtcactt	74940
ggaacactgg	tatatgtgct	attgagtggt	atcaacccat	tcctggctga	aactaaccac	75000
cagatcattg	agaatatcat	gaatgctgaa	tatactttcg	atgaggaagc	attcaaagag	75060
attagcattg	aagccatgga	ttttgttgac	cgttggttag	tgaaagagag	gaaatctcgc	75120
atgacagcat	cggaggctct	ccagcaccca	tggttgaagc	agaagataga	aagagtcagt	75180

actaaagtta	tcagaacatt	aaaacaccgg	cgttattacc	acaccctgat	caagaaagac	75240
ctcaacatgg	ttgtgtcagc	agccccgatc	tccctgtggg	gtgcaattcg	atctcagaag	75300
ggagtgaagt	ttgtctaaag	taaagtggga	tccattgaaa	ttggcccagt	ttctggggcag	75360
ataatgcatg	cagtttggtga	agaaggagga	catgtcaaat	atgtatgcaa	aattgaaaat	75420
tatgatcagt	ctacccaagt	gacttgggtac	tttgggtgtcc	gacagctgga	gaacagtgag	75480
aaatacgaaa	tcacctacga	agatggagtg	gccatcctct	atgtcaaaga	cattaccaaa	75540
ttagatgatg	gtacctacag	atgcaaagta	gtcaatgact	atgggtgaaga	cagttcttat	75600
gcagagctat	ttgttaaagg	tgtgagagaa	gtctatgact	attactgccg	tagaaccatg	75660
aagaaaatta	agcgcagaac	agacacaatg	agactcctgg	aaaggccacc	agaattttacc	75720
ctgcctctct	ataataagac	agcttatgta	ggtgaaaatg	tccggttttg	agtaactata	75780
actgtccacc	cagagcctca	tgtaacatgg	tataaatcag	gtcagaaaat	caaaccaggt	75840
gacaatgaca	agaagtacac	at ttgagtc	gacaagggtc	tttaccaatt	aacaatcaac	75900
agtgtcacta	cagatgatga	cgctgaatat	actgttgtgg	caaggaacaa	atatgggtgaa	75960
gacagctgta	aagcaaaagc	gacagtaacc	ctacaccac	ctccaacaga	tagtacctta	76020
agacccatgt	tcaaaaaggt	actggcaaat	gcagaatgcc	aagaaggcca	aagtgtctgc	76080
tttgagatca	gagtgtctgg	catcccccca	ccaacattaa	aatgggagaa	agatgggtcag	76140
ccactgtccc	tccggcctaa	cattgaaatt	atccatgaag	gcttggatta	ttatgctctg	76200
cacatcaggg	acacttttgc	tgaagacacg	ggttattata	gagtcacagc	cactaacaca	76260
gctgggtcca	ccagctgcca	ggctcaccta	caagtggaa	gcctgaggtg	caagaaacag	76320
gaattcaaga	gtaaggagga	gcatgagcga	cacgtacaaa	aacaaattga	caaaaccctc	76380
agaatggctg	aaattctttc	tggaaactgaa	agtgtaccac	tgacacaggt	agctaaagag	76440
gctctgagag	aagtgtctgt	cctttataaa	ccggctgtaa	gcaccaagac	tgtaaaaggg	76500
gaattcagac	ttgagataga	agaaaagaag	gaggagagaa	aactccggat	gccttatgat	76560
gtaccagagc	cacgcaagta	taagcagact	acatagaag	aagaccaacg	catcaagcag	76620
ttcgtgccca	tgtctgacat	gaagtgggat	aaaaagatac	gtgatcagta	tgaaatgcct	76680
gggaaacttg	acagagttgt	acagaaacga	cccaagcgca	tccgcctttc	aagatgggaa	76740
cagttctatg	tgatgcctct	tccacgcatt	acagatcaat	acagacctaa	atggcggtatt	76800
cctaaactgt	ccaagatga	tcttgagata	gtgagaccag	cccgcggcg	tacaccttct	76860
cctgattatg	acttttacta	ccgacctaga	agacgttctc	ttggggacat	ctctgatgaa	76920
gaattactcc	tccccattga	tgactactta	gcaatgaaaa	gaacagagga	agagaggctg	76980
cgtcttgaag	aagagcttga	gttaggtttt	tcagcttcac	ccccaaagtcg	aagccctcca	77040
cactttgagc	tttctagcct	acgttactct	tcaccacaag	ctcatgtcaa	ggtggaggaa	77100
acaagaaaaa	acttcaggta	ttcaacctat	cacatcccaa	cgaaggctga	agctagtaca	77160
agttatgcag	aactgagggg	acggcatgcc	caggtctcgt	acagacagcc	aaagcaacgg	77220
caaagaatca	tggctgagag	ggaggatgaa	gagttgcttc	gccagttac	gaccacccag	77280
catctctcag	aatacaaaa	cgaacttgac	ttcatgtcaa	aggaggaaaa	gtctagaaag	77340
aatcaaggc	gacaaagaga	agtgcacagaa	ataacagaaa	ttgaggaaga	atacgaaatc	77400
tcaaaacatg	ctcaaaagaga	atcatcctca	tctgcgtcta	gactactgag	acgacggcgc	77460
tccctgtctc	caacttatat	tgagttaatg	aggccagtg	ctgagctgat	ccggtcacgt	77520
ccacaaccgg	ctgaggaata	cgaagatgac	acagaaagaa	ggtcacctac	tccagagaga	77580
actgcgccac	gatccccccag	cctgtgtct	agtgcagagat	cactctcgag	at ttgagagg	77640
tctgcaagat	ttgatatact	ttccagggtat	gagtcctatga	aagctgcttt	aaaaactcag	77700
aagacatcag	aaagggaagta	tgaagttttg	agtcagcagc	ctttcacact	ggaccatgcc	77760
cctcgaatca	cactgagaat	gcgctcgac	aggggtaccat	gtggccaaaa	tacacgtttt	77820
at ttttaaatg	ttcagttctaa	gccaaactgcc	gaggttaaat	ggtaccacaa	tgggtgtggaa	77880
ctccaagaaa	gcagtaagat	tcattacacc	aacacgagtg	gagtcctcac	cctggaaatt	77940
ctggactgtc	atactgatga	cagtggaaacc	taccgtgctg	tgtgcaccaa	ctacaagggc	78000
gaagcttctg	actatgcaac	gttggacgtg	acaggagggg	attataccac	ctatgcttcc	78060
caacgcagag	atgaagaggt	ccccagatct	gttttccctg	agctgacaag	aacagaggcg	78120
tatgctgttc	catcatttaa	gaaaacatct	gagatggaag	cttcgtcttc	tgtcagggaa	78180
gtgaaatcac	agatgacgga	gacaagggaa	agtcctctct	catatgaaca	ctctgcactc	78240
gcagaaatga	aaagtgtctg	attagaagaa	aagtcaactg	aagaaaaatc	cacaaccaga	78300
aagatcaaga	cgacttttgg	agcaagaatt	ctaacaaagc	cacggtccat	gaccgtctac	78360
gagggcgagt	ctgcaagggt	ttcttgtgac	accgatgggtg	agccggtacc	aactgtgacc	78420
tggctgcgta	aaggacaagt	gctaagtact	tctgcccgc	accaagtgac	caccacaaag	78480
tacaaatcaa	ccttttgagat	ctcttcagtc	caggcttccg	atgagggcaa	ttacagcgtg	78540
gtggtagaaa	acagtgaagg	gaaacaagaa	gcagagttca	ctctgactat	tcaaaaggcc	78600
agggtaactg	aaaaggctgt	gacatcacca	ccaagagtca	aatccccaga	gcctcggtg	78660

aaatccccag	aagcagttaa	gtctccaaaa	cgagtgaat	ctccagaacc	ttctcaccg	78720
aaagccgcat	cacccacaga	gacaaaacca	acaccaagag	agaaagtcca	gcacctccca	78780
gtctctgccc	caccaaagat	tactcagttc	ctgaaagcag	aagcttctaa	agagattgca	78840
aaactgacct	gtgtggttga	aagcagtgta	ttaagggcaa	aagaggtcac	ctggtataaa	78900
gatggcaaga	aactgaagga	aaatgggcat	ttccagtttc	attattcagc	agatgggtacc	78960
tatgagctca	aaatcaataa	cctcactgaa	tctgatcaag	gagaatatgt	ttgtgagatt	79020
tctggtgaag	gtggaacgtc	taaaaccaac	ttacaattta	tggggcaagc	ctttaagagt	79080
atccatgaga	aggtatcaaa	aatatcagaa	actaagaaat	cagatcagaa	aaccactgag	79140
tcaacagtaa	ccagaaaaac	tgaacccaaa	gtccttgaac	caatttcctc	aaaaccagta	79200
attgttactg	ggttgagga	tacaactggt	tcttcagaca	gtgttgctaa	atttgagatt	79260
aaggctactg	gagaaccccg	gccaaactgcc	atctggacaa	aagatggaaa	ggccattaca	79320
caaggaggta	aatataaact	ctctgaagac	aagggagggt	tcttcttaga	aattcataag	79380
actgatactt	ctgacagtgg	actttatact	tgtacagtaa	aaaattcagc	tggatctgtg	79440
tcctctagct	gcaaattaac	aataaaaagct	ataaaaagata	ctgaggcaca	gaaagtctct	79500
acacaaaaga	ctcttgaaat	tacacctcag	aagaaaagctg	ttgtccaaga	ggaaaatttcc	79560
caaaaagccc	taaggtctga	agaaattaag	atgtcagagg	caaaatctca	agaaaagtta	79620
gccctcaaag	aggaagcttc	aaaggttctg	atcttctgaag	aagtcaagaa	atcagcagca	79680
acctccctgg	aaaaatccat	tgtccatgag	gaaatcacta	aaacatcaca	ggcatcagaa	79740
gaagtgcaga	ctcatgctga	gattaaagca	ttttctactc	agatgagcat	aaacgaaggt	79800
caaagactgg	ttttaaaagc	caacattgct	ggtgccactg	atgtgaaatg	ggtactgact	79860
ggcgtagagc	ttaccaactc	tgaggagtac	cgatatgggtg	tctcaggcag	cgatcagacc	79920
ctaaccatca	agcaagccag	tcacagagat	gaaggaatcc	tcacctgcat	aagcaaaacc	79980
aaggaaggaa	tcgtcaagtg	tcagtatgat	ttgacactga	gcaaagaact	ctcagatgct	80040
ccagccttca	tctcacagcc	tagatctcaa	aatattaatg	aaggacaaaa	tgttctcttt	80100
acttgtgaaa	tcacgtggcg	gccatcccct	gaaatcgaaat	ggtttaaaaa	caacctgcca	80160
atctctatct	cttcaaatgt	cagcataagc	cgctccagaa	atgtatactc	ccttgaaatc	80220
cgaaatgcat	cagtcagcga	cagtggaaag	tacacaatta	aggccaaaaa	tttccgtggc	80280
cagtgttcag	ctacagcttc	cttaatgggtc	cttctcttag	ttgaagaacc	ttccagagag	80340
gtagtattga	gaacaagtgg	tgacacaagc	ttgcaaggaa	gcttctctgc	tcagtcatgc	80400
caaagtcttg	cctccaagca	ggaggcctcc	ttcagcagtt	tcagcagcag	cagtgtcagc	80460
agcatgactg	agatgaaatt	tgcaagcatg	tgccccaaa	gcatgtcctc	catgcaagag	80520
tcctttgtag	aaatgagttc	cagcagcttt	atgggaatat	ctaatatgac	acaactggaa	80580
agctcaacta	gtaaaatgct	taaagcaggc	ataagaggaa	ttccgcctaa	aattgaagct	80640
cttccatctg	atatcagcat	tgatgaaggc	aaagttctaa	cagttagcctg	tgctttcacc	80700
ggtgagccta	ccccagaagt	aacatgggtcc	tgtggtggaa	gaaaaatcca	cagtcaagaa	80760
caggggaggt	cacggaattg	aaaacacagat	gacctgacaa	ccctgatcat	catggacgta	80820
cagaaacaag	atggtggact	ttataccctg	agtttaggga	atgaatttgg	atctgactct	80880
gccactgtga	atatacatat	tcgatccatt	taagaggggc	tgtgccctta	tactctacac	80940
tcattcttaa	ctttctgcaa	acgtttcaca	cggactaatc	tttctgaact	gtaaatattt	81000
aaagaaaaaa	agtagttttg	tatcaaccta	aatgagtcga	agttcaaaaa	tattcatatt	81060
aatcttttca	taattgttga	cctaagaata	taatacatct	gctagtgcga	tgtacatact	81120
gtatatagcc	ggattaacgg	ttataaagtt	ttgtaccatt	tattttatga	catttttaca	81180
tgtaagtgtt	gaaactaact	gttggttagga	gaaagtttct	tatggaacga	ataccctgct	81240
caacatttaa	tcaatctttg	tgctcaaca	tactgttgat	gtctaagtat	gcctcagtg	81300
gttgagaaaa	tccccattga	agatgtcctg	tccacctaaa	agagaatgat	gctgtgcata	81360
tcacttgata	tgtgcaccaa	tacctactga	atcagaaatg	taaggcattg	gtgatgtttg	81420
catttaccct	cctgtaagca	acactttaac	gtcttacatt	ttctctgatg	atgtcacaca	81480
aaattatcat	gacaaatatt	accagagcaa	agtgtaacgg	ccaacacttt	gttcgctcat	81540
tttacgctgt	ctctgacata	aggagtgcct	gaatagcttg	gaaaagtaac	atctcctggc	81600
catcccttca	tttaaccaag	ctattcaagt	attcctatgc	cagagcagtg	ccaactcttg	81660
gaggtcccag	agtgcagcca	atgcctttgt	gtggtagttc	taaattttta	ttgcacctga	81720
aaaacctggg	cacctaagca	atgagccaca	gcaaaaagta	agaacaaca	acaaaaataa	81780
gctgtgttta	aattttaaac	aatattacta	atgtcccaaa	atgtcaattt	gatgtagttc	81840
ttttcatgca	agtataaatt	caattgttag	ttataattgt	tggacctcct	tgagatagta	81900
acaacaaaat	aaagcaagct	atctgcacct	caaaaaaaaa			81940

<210> 2
 <211> 26926
 <212> PRT
 <213> Homo sapiens

<400> 2

Met	Thr	Thr	Gln	Ala	Pro	Thr	Phe	Thr	Gln	Pro	Leu	Gln	Ser	Val	Val
1				5					10					15	
Val	Leu	Glu	Gly	Ser	Thr	Ala	Thr	Phe	Glu	Ala	His	Ile	Ser	Gly	Phe
			20					25					30		
Pro	Val	Pro	Glu	Val	Ser	Trp	Phe	Arg	Asp	Gly	Gln	Val	Ile	Ser	Thr
		35					40					45			
Ser	Thr	Leu	Pro	Gly	Val	Gln	Ile	Ser	Phe	Ser	Asp	Gly	Arg	Ala	Lys
	50					55					60				
Leu	Thr	Ile	Pro	Ala	Val	Thr	Lys	Ala	Asn	Ser	Gly	Arg	Tyr	Ser	Leu
65					70					75					80
Lys	Ala	Thr	Asn	Gly	Ser	Gly	Gln	Ala	Thr	Ser	Thr	Ala	Glu	Leu	Leu
			85						90					95	
Val	Lys	Ala	Glu	Thr	Ala	Pro	Pro	Asn	Phe	Val	Gln	Arg	Leu	Gln	Ser
			100					105						110	
Met	Thr	Val	Arg	Gln	Gly	Ser	Gln	Val	Arg	Leu	Gln	Val	Arg	Val	Thr
		115					120					125			
Gly	Ile	Pro	Thr	Pro	Val	Val	Lys	Phe	Tyr	Arg	Asp	Gly	Ala	Glu	Ile
	130					135					140				
Gln	Ser	Ser	Leu	Asp	Phe	Gln	Ile	Ser	Gln	Glu	Gly	Asp	Leu	Tyr	Ser
145					150					155					160
Leu	Leu	Ile	Ala	Glu	Ala	Tyr	Pro	Glu	Asp	Ser	Gly	Thr	Tyr	Ser	Val
				165					170					175	
Asn	Ala	Thr	Asn	Ser	Val	Gly	Arg	Ala	Thr	Ser	Thr	Ala	Glu	Leu	Leu
			180					185						190	
Val	Gln	Gly	Glu	Glu	Glu	Val	Pro	Ala	Lys	Lys	Thr	Lys	Thr	Ile	Val
		195					200					205			
Ser	Thr	Ala	Gln	Ile	Ser	Glu	Ser	Arg	Gln	Thr	Arg	Ile	Glu	Lys	Lys
	210					215					220				
Ile	Glu	Ala	His	Phe	Asp	Ala	Arg	Ser	Ile	Ala	Thr	Val	Glu	Met	Val
225					230					235					240
Ile	Asp	Gly	Ala	Ala	Gly	Gln	Gln	Leu	Pro	His	Lys	Thr	Pro	Pro	Arg
				245					250					255	
Ile	Pro	Pro	Lys	Pro	Lys	Ser	Arg	Ser	Pro	Thr	Pro	Pro	Ser	Ile	Ala
			260					265					270		
Ala	Lys	Ala	Gln	Leu	Ala	Arg	Gln	Gln	Ser	Pro	Ser	Pro	Ile	Arg	His
		275					280					285			
Ser	Pro	Ser	Pro	Val	Arg	His	Val	Arg	Ala	Pro	Thr	Pro	Ser	Pro	Val
	290					295					300				
Arg	Ser	Val	Ser	Pro	Ala	Ala	Arg	Ile	Ser	Thr	Ser	Pro	Ile	Arg	Ser
305					310					315					320
Val	Arg	Ser	Pro	Leu	Leu	Met	Arg	Lys	Thr	Gln	Ala	Ser	Thr	Val	Ala
				325					330					335	
Thr	Gly	Pro	Glu	Val	Pro	Pro	Pro	Trp	Lys	Gln	Glu	Gly	Tyr	Val	Ala
			340					345					350		
Ser	Ser	Ser	Glu	Ala	Glu	Met	Arg	Glu	Thr	Thr	Leu	Thr	Thr	Ser	Thr
		355					360					365			
Gln	Ile	Arg	Thr	Glu	Glu	Arg	Trp	Glu	Gly	Arg	Tyr	Gly	Val	Gln	Glu
	370					375					380				
Gln	Val	Thr	Ile	Ser	Gly	Ala	Ala	Gly	Ala	Ala	Ala	Ser	Val	Ser	Ala
385					390					395					400
Ser	Ala	Ser	Tyr	Ala	Ala	Glu	Ala	Val	Ala	Thr	Gly	Ala	Lys	Glu	Val
				405					410					415	

Lys	Gln	Asp	Ala	Asp	Lys	Ser	Ala	Ala	Val	Ala	Thr	Val	Val	Ala	Ala
			420					425					430		
Val	Asp	Met	Ala	Arg	Val	Arg	Glu	Pro	Val	Ile	Ser	Ala	Val	Glu	Gln
		435					440					445			
Thr	Ala	Gln	Arg	Thr	Thr	Thr	Thr	Ala	Val	His	Ile	Gln	Pro	Ala	Gln
		450				455					460				
Glu	Gln	Val	Arg	Lys	Glu	Ala	Glu	Lys	Thr	Ala	Val	Thr	Lys	Val	Val
465					470					475				480	
Val	Ala	Ala	Asp	Lys	Ala	Lys	Glu	Gln	Glu	Leu	Lys	Ser	Arg	Thr	Lys
			485						490					495	
Glu	Ile	Ile	Thr	Thr	Lys	Gln	Glu	Gln	Met	His	Val	Thr	His	Glu	Gln
			500					505					510		
Ile	Arg	Lys	Glu	Thr	Glu	Lys	Thr	Phe	Val	Pro	Lys	Val	Val	Ile	Ser
		515					520					525			
Ala	Ala	Lys	Ala	Lys	Glu	Gln	Glu	Thr	Arg	Ile	Ser	Glu	Glu	Ile	Thr
		530				535					540				
Lys	Lys	Gln	Lys	Gln	Val	Thr	Gln	Glu	Ala	Ile	Met	Lys	Glu	Thr	Arg
545					550					555					560
Lys	Thr	Val	Val	Pro	Lys	Val	Ile	Val	Ala	Thr	Pro	Lys	Val	Lys	Glu
			565						570					575	
Gln	Asp	Leu	Val	Ser	Arg	Gly	Arg	Glu	Gly	Ile	Thr	Thr	Lys	Arg	Glu
		580						585					590		
Gln	Val	Gln	Ile	Thr	Gln	Glu	Lys	Met	Arg	Lys	Glu	Ala	Glu	Lys	Thr
		595					600					605			
Ala	Leu	Ser	Thr	Ile	Ala	Val	Ala	Thr	Ala	Lys	Ala	Lys	Glu	Gln	Glu
		610				615					620				
Thr	Ile	Leu	Arg	Thr	Arg	Glu	Thr	Met	Ala	Thr	Arg	Gln	Glu	Gln	Ile
625					630					635					640
Gln	Val	Thr	His	Gly	Lys	Val	Asp	Val	Gly	Lys	Lys	Ala	Glu	Ala	Val
			645						650					655	
Ala	Thr	Val	Val	Ala	Ala	Val	Asp	Gln	Ala	Arg	Val	Arg	Glu	Pro	Arg
		660						665					670		
Glu	Pro	Gly	His	Leu	Glu	Glu	Ser	Tyr	Ala	Gln	Gln	Thr	Thr	Leu	Glu
		675					680					685			
Tyr	Gly	Tyr	Lys	Glu	Arg	Ile	Ser	Ala	Ala	Lys	Val	Ala	Glu	Pro	Pro
		690				695					700				
Gln	Arg	Pro	Ala	Ser	Glu	Pro	His	Val	Val	Pro	Lys	Ala	Val	Lys	Pro
705					710					715					720
Arg	Val	Ile	Gln	Ala	Pro	Ser	Glu	Thr	His	Ile	Lys	Thr	Thr	Asp	Gln
			725						730					735	
Lys	Gly	Met	His	Ile	Ser	Ser	Gln	Ile	Lys	Lys	Thr	Thr	Asp	Leu	Thr
		740						745					750		
Thr	Glu	Arg	Leu	Val	His	Val	Asp	Lys	Arg	Pro	Arg	Thr	Ala	Ser	Pro
		755					760					765			
His	Phe	Thr	Val	Ser	Lys	Ile	Ser	Val	Pro	Lys	Thr	Glu	His	Gly	Tyr
		770				775					780				
Glu	Ala	Ser	Ile	Ala	Gly	Ser	Ala	Ile	Ala	Thr	Leu	Gln	Lys	Glu	Leu
785					790					795					800
Ser	Ala	Thr	Ser	Ser	Ala	Gln	Lys	Ile	Thr	Lys	Ser	Val	Lys	Ala	Pro
			805						810					815	
Thr	Val	Lys	Pro	Ser	Glu	Thr	Arg	Val	Arg	Ala	Glu	Pro	Thr	Pro	Leu
		820						825					830		
Pro	Gln	Phe	Pro	Phe	Ala	Asp	Thr	Pro	Asp	Thr	Tyr	Lys	Ser	Glu	Ala
		835				840						845			
Gly	Val	Glu	Val	Lys	Lys	Glu	Val	Gly	Val	Ser	Ile	Thr	Gly	Thr	Thr
		850				855					860				
Val	Arg	Glu	Glu	Arg	Phe	Glu	Val	Leu	His	Gly	Arg	Glu	Ala	Lys	Val
865					870					875					880

Thr	Glu	Thr	Ala	Arg	Val	Pro	Ala	Pro	Val	Glu	Ile	Pro	Val	Thr	Pro
				885					890					895	
Pro	Thr	Leu	Val	Ser	Gly	Leu	Lys	Asn	Val	Thr	Val	Ile	Glu	Gly	Glu
			900					905					910		
Ser	Val	Thr	Leu	Glu	Cys	His	Ile	Ser	Gly	Tyr	Pro	Ser	Pro	Thr	Val
			915				920					925			
Thr	Trp	Tyr	Arg	Glu	Asp	Tyr	Gln	Ile	Glu	Ser	Ser	Ile	Asp	Phe	Gln
	930					935					940				
Ile	Thr	Phe	Gln	Ser	Gly	Ile	Ala	Arg	Leu	Met	Ile	Arg	Glu	Ala	Phe
945					950					955					960
Ala	Glu	Asp	Ser	Gly	Arg	Phe	Thr	Cys	Ser	Ala	Val	Asn	Glu	Ala	Gly
				965					970					975	
Thr	Val	Ser	Thr	Ser	Cys	Tyr	Leu	Ala	Val	Gln	Val	Ser	Glu	Glu	Phe
			980					985					990		
Glu	Lys	Glu	Thr	Thr	Ala	Val	Thr	Glu	Lys	Phe	Thr	Thr	Glu	Glu	Lys
		995					1000					1005			
Arg	Phe	Val	Glu	Ser	Arg	Asp	Val	Val	Met	Thr	Asp	Thr	Ser	Leu	Thr
	1010					1015					1020				
Glu	Glu	Gln	Ala	Gly	Pro	Gly	Glu	Pro	Ala	Ala	Pro	Tyr	Phe	Ile	Thr
1025					1030					1035					1040
Lys	Pro	Val	Val	Gln	Lys	Leu	Val	Glu	Gly	Gly	Ser	Val	Val	Phe	Gly
				1045					1050					1055	
Cys	Gln	Val	Gly	Gly	Asn	Pro	Lys	Pro	His	Val	Tyr	Trp	Lys	Lys	Ser
		1060						1065					1070		
Gly	Val	Pro	Leu	Thr	Thr	Gly	Tyr	Arg	Tyr	Lys	Val	Ser	Tyr	Asn	Lys
		1075					1080					1085			
Gln	Thr	Gly	Glu	Cys	Lys	Leu	Val	Ile	Ser	Met	Thr	Phe	Ala	Asp	Asp
	1090					1095					1100				
Ala	Gly	Glu	Tyr	Thr	Ile	Val	Val	Arg	Asn	Lys	His	Gly	Glu	Thr	Ser
1105					1110					1115					1120
Ala	Ser	Ala	Ser	Leu	Leu	Glu	Glu	Ala	Asp	Tyr	Glu	Leu	Leu	Met	Lys
				1125					1130					1135	
Ser	Gln	Gln	Glu	Met	Leu	Tyr	Gln	Thr	Gln	Val	Thr	Ala	Phe	Val	Gln
		1140						1145					1150		
Glu	Pro	Glu	Val	Gly	Glu	Thr	Ala	Pro	Gly	Phe	Val	Tyr	Ser	Glu	Tyr
	1155						1160					1165			
Glu	Lys	Glu	Tyr	Glu	Lys	Glu	Gln	Ala	Leu	Ile	Arg	Lys	Lys	Met	Ala
	1170					1175					1180				
Lys	Asp	Thr	Val	Val	Val	Arg	Thr	Tyr	Val	Glu	Asp	Gln	Glu	Phe	His
1185					1190					1195					1200
Ile	Ser	Ser	Phe	Glu	Glu	Arg	Leu	Ile	Lys	Glu	Ile	Glu	Tyr	Arg	Ile
			1205						1210					1215	
Ile	Lys	Thr	Thr	Leu	Glu	Glu	Leu	Leu	Glu	Glu	Asp	Gly	Glu	Glu	Lys
		1220					1225						1230		
Met	Ala	Val	Asp	Ile	Ser	Glu	Ser	Glu	Ala	Val	Glu	Ser	Gly	Phe	Asp
		1235					1240					1245			
Leu	Arg	Ile	Lys	Asn	Tyr	Arg	Ile	Leu	Glu	Gly	Met	Gly	Val	Thr	Phe
	1250					1255					1260				
His	Cys	Lys	Met	Ser	Gly	Tyr	Pro	Leu	Pro	Lys	Ile	Ala	Trp	Tyr	Lys
1265					1270					1275					1280
Asp	Gly	Lys	Arg	Ile	Lys	His	Gly	Glu	Arg	Tyr	Gln	Met	Asp	Phe	Leu
			1285						1290					1295	
Gln	Asp	Gly	Arg	Ala	Ser	Leu	Arg	Ile	Pro	Val	Val	Leu	Pro	Glu	Asp
		1300						1305					1310		
Glu	Gly	Ile	Tyr	Thr	Ala	Phe	Ala	Ser	Asn	Ile	Lys	Gly	Asn	Ala	Ile
	1315						1320					1325			
Cys	Ser	Gly	Lys	Leu	Tyr	Val	Glu	Pro	Ala	Ala	Pro	Leu	Gly	Ala	Pro
	1330					1335					1340				

Thr Tyr Ile Pro Thr Leu Glu Pro Val Ser Arg Ile Arg Ser Leu Ser
 1345 1350 1355 1360
 Pro Arg Ser Val Ser Arg Ser Pro Ile Arg Met Ser Pro Ala Arg Met
 1365 1370 1375
 Ser Pro Ala Arg Met Ser Pro Ala Arg Met Ser Pro Ala Arg Met Ser
 1380 1385 1390
 Pro Gly Arg Arg Leu Glu Glu Thr Asp Glu Ser Gln Leu Glu Arg Leu
 1395 1400 1405
 Tyr Lys Pro Val Phe Val Leu Lys Pro Val Ser Phe Lys Cys Leu Glu
 1410 1415 1420
 Gly Gln Thr Ala Arg Phe Asp Leu Lys Val Val Gly Arg Pro Met Pro
 1425 1430 1435 1440
 Glu Thr Phe Trp Phe His Asp Gly Gln Gln Ile Val Asn Asp Tyr Thr
 1445 1450 1455
 His Lys Val Val Ile Lys Glu Asp Gly Thr Gln Ser Leu Ile Ile Val
 1460 1465 1470
 Pro Ala Thr Pro Ser Asp Ser Gly Glu Trp Thr Val Val Ala Gln Asn
 1475 1480 1485
 Arg Ala Gly Arg Ser Ser Ile Ser Val Ile Leu Thr Val Glu Ala Val
 1490 1495 1500
 Glu His Gln Val Lys Pro Met Phe Val Glu Lys Leu Lys Asn Val Asn
 1505 1510 1515 1520
 Ile Lys Glu Gly Ser Arg Leu Glu Met Lys Val Arg Ala Thr Gly Asn
 1525 1530 1535
 Pro Asn Pro Asp Ile Val Trp Leu Lys Asn Ser Asp Ile Ile Val Pro
 1540 1545 1550
 His Lys Tyr Pro Lys Ile Arg Ile Glu Gly Thr Lys Gly Glu Ala Ala
 1555 1560 1565
 Leu Lys Ile Asp Ser Thr Val Ser Gln Asp Ser Ala Trp Tyr Thr Ala
 1570 1575 1580
 Thr Ala Ile Asn Lys Ala Gly Arg Asp Thr Thr Arg Cys Lys Val Asn
 1585 1590 1595 1600
 Val Glu Val Glu Phe Ala Glu Pro Glu Pro Glu Arg Lys Leu Ile Ile
 1605 1610 1615
 Pro Arg Gly Thr Tyr Arg Ala Lys Glu Ile Ala Ala Pro Glu Leu Glu
 1620 1625 1630
 Pro Leu His Leu Arg Tyr Gly Gln Glu Gln Trp Glu Glu Gly Asp Leu
 1635 1640 1645
 Tyr Asp Lys Glu Lys Gln Gln Lys Pro Phe Phe Lys Lys Lys Leu Thr
 1650 1655 1660
 Ser Leu Arg Leu Lys Arg Phe Gly Pro Ala His Phe Glu Cys Arg Leu
 1665 1670 1675 1680
 Thr Pro Ile Ser Asp Pro Thr Met Val Val Glu Trp Leu His Asp Gly
 1685 1690 1695
 Lys Pro Leu Glu Ala Ala Asn Arg Leu Arg Met Ile Asn Glu Phe Gly
 1700 1705 1710
 Tyr Cys Ser Leu Asp Tyr Gly Val Ala Tyr Ser Arg Asp Ser Gly Ile
 1715 1720 1725
 Ile Thr Cys Arg Ala Thr Asn Lys Tyr Gly Thr Asp His Thr Ser Ala
 1730 1735 1740
 Thr Leu Ile Val Lys Asp Glu Lys Ser Leu Val Glu Glu Ser Gln Leu
 1745 1750 1755 1760
 Pro Glu Gly Arg Lys Gly Leu Gln Arg Ile Glu Glu Leu Glu Arg Met
 1765 1770 1775
 Ala His Glu Gly Ala Leu Thr Gly Val Thr Thr Asp Gln Lys Glu Lys
 1780 1785 1790
 Gln Lys Pro Asp Ile Val Leu Tyr Pro Glu Pro Val Arg Val Leu Glu
 1795 1800 1805

Gly	Glu	Thr	Ala	Arg	Phe	Arg	Cys	Arg	Val	Thr	Gly	Tyr	Pro	Gln	Pro	1810	1815	1820
Lys	Val	Asn	Trp	Tyr	Leu	Asn	Gly	Gln	Leu	Ile	Arg	Lys	Ser	Lys	Arg	1825	1830	1835
Phe	Arg	Val	Arg	Tyr	Asp	Gly	Ile	His	Tyr	Leu	Asp	Ile	Val	Asp	Cys	1845	1850	1855
Lys	Ser	Tyr	Asp	Thr	Gly	Glu	Val	Lys	Val	Thr	Ala	Glu	Asn	Pro	Glu	1860	1865	1870
Gly	Val	Ile	Glu	His	Lys	Val	Lys	Leu	Glu	Ile	Gln	Gln	Arg	Glu	Asp	1875	1880	1885
Phe	Arg	Ser	Val	Leu	Arg	Arg	Ala	Pro	Glu	Pro	Arg	Pro	Glu	Phe	His	1890	1895	1900
Val	His	Glu	Pro	Gly	Lys	Leu	Gln	Phe	Glu	Val	Gln	Lys	Val	Asp	Arg	1905	1910	1915
Pro	Val	Asp	Thr	Thr	Glu	Thr	Lys	Glu	Val	Val	Lys	Leu	Lys	Arg	Ala	1925	1930	1935
Glu	Arg	Ile	Thr	His	Glu	Lys	Val	Pro	Glu	Glu	Ser	Glu	Glu	Leu	Arg	1940	1945	1950
Ser	Lys	Phe	Lys	Arg	Arg	Thr	Glu	Gly	Tyr	Tyr	Glu	Ala	Ile	Thr		1955	1960	1965
Ala	Val	Glu	Leu	Lys	Ser	Arg	Lys	Lys	Asp	Glu	Ser	Tyr	Glu	Glu	Leu	1970	1975	1980
Leu	Arg	Lys	Thr	Lys	Asp	Glu	Leu	Leu	His	Trp	Thr	Lys	Glu	Leu	Thr	1985	1990	1995
Glu	Glu	Glu	Lys	Lys	Ala	Leu	Ala	Glu	Glu	Gly	Lys	Ile	Thr	Ile	Pro	2005	2010	2015
Thr	Phe	Lys	Pro	Asp	Lys	Ile	Glu	Leu	Ser	Pro	Ser	Met	Glu	Ala	Pro	2020	2025	2030
Lys	Ile	Phe	Glu	Arg	Ile	Gln	Ser	Gln	Thr	Val	Gly	Gln	Gly	Ser	Asp	2035	2040	2045
Ala	His	Phe	Arg	Val	Arg	Val	Val	Gly	Lys	Pro	Asp	Pro	Glu	Cys	Glu	2050	2055	2060
Trp	Tyr	Lys	Asn	Gly	Val	Lys	Ile	Glu	Arg	Ser	Asp	Arg	Ile	Tyr	Trp	2065	2070	2075
Tyr	Trp	Pro	Glu	Asp	Asn	Val	Cys	Glu	Leu	Val	Ile	Arg	Asp	Val	Thr	2085	2090	2095
Ala	Glu	Asp	Ser	Ala	Ser	Ile	Met	Val	Lys	Ala	Ile	Asn	Ile	Ala	Gly	2100	2105	2110
Glu	Thr	Ser	Ser	His	Ala	Phe	Leu	Leu	Val	Gln	Ala	Lys	Gln	Leu	Ile	2115	2120	2125
Thr	Phe	Thr	Gln	Glu	Leu	Gln	Asp	Val	Val	Ala	Lys	Glu	Lys	Asp	Thr	2130	2135	2140
Met	Ala	Thr	Phe	Glu	Cys	Glu	Thr	Ser	Glu	Pro	Phe	Val	Lys	Val	Lys	2145	2150	2155
Trp	Tyr	Lys	Asp	Gly	Met	Glu	Val	His	Glu	Gly	Asp	Lys	Tyr	Arg	Met	2165	2170	2175
His	Ser	Asp	Arg	Lys	Val	His	Phe	Leu	Ser	Ile	Leu	Thr	Ile	Asp	Thr	2180	2185	2190
Ser	Asp	Ala	Glu	Asp	Tyr	Ser	Cys	Val	Leu	Val	Glu	Asp	Glu	Asn	Val	2195	2200	2205
Lys	Thr	Thr	Ala	Lys	Leu	Ile	Val	Glu	Gly	Ala	Val	Val	Glu	Phe	Val	2210	2215	2220
Lys	Glu	Leu	Gln	Asp	Ile	Glu	Val	Pro	Glu	Ser	Tyr	Ser	Gly	Glu	Leu	2225	2230	2235
Glu	Cys	Ile	Val	Ser	Pro	Glu	Asn	Ile	Glu	Gly	Lys	Trp	Tyr	His	Asn	2245	2250	2255
Asp	Val	Glu	Leu	Lys	Ser	Asn	Gly	Lys	Tyr	Thr	Ile	Thr	Ser	Arg	Arg	2260	2265	2270

Arg	Leu	Gly	Ala	Ser	Ala	Arg	Leu	His	Val	Glu	Thr	Val	Lys	Ile	Ile	
			2740					2745					2750			
Lys	Lys	Pro	Lys	Asp	Val	Thr	Ala	Leu	Glu	Asn	Ala	Thr	Val	Ala	Phe	
		2755					2760					2765				
Glu	Val	Ser	Val	Ser	His	Asp	Thr	Val	Pro	Val	Lys	Trp	Phe	His	Lys	
	2770					2775					2780					
Ser	Val	Glu	Ile	Lys	Pro	Ser	Asp	Lys	His	Arg	Leu	Val	Ser	Glu	Arg	
2785					2790					2795					2800	
Lys	Val	His	Lys	Leu	Met	Leu	Gln	Asn	Ile	Ser	Pro	Ser	Asp	Ala	Gly	
			2805						2810					2815		
Glu	Tyr	Thr	Ala	Val	Val	Gly	Gln	Leu	Glu	Cys	Lys	Ala	Lys	Leu	Phe	
		2820						2825					2830			
Val	Glu	Thr	Leu	His	Ile	Thr	Lys	Thr	Met	Lys	Asn	Ile	Glu	Val	Pro	
	2835						2840					2845				
Glu	Thr	Lys	Thr	Ala	Ser	Phe	Glu	Cys	Glu	Val	Ser	His	Phe	Asn	Val	
	2850					2855					2860					
Pro	Ser	Met	Trp	Leu	Lys	Asn	Gly	Val	Glu	Ile	Glu	Met	Ser	Glu	Lys	
2865					2870					2875					2880	
Phe	Lys	Ile	Val	Val	Gln	Gly	Lys	Leu	His	Gln	Leu	Ile	Ile	Met	Asn	
			2885						2890					2895		
Thr	Ser	Thr	Glu	Asp	Ser	Ala	Glu	Tyr	Thr	Phe	Val	Cys	Gly	Asn	Asp	
		2900						2905					2910			
Gln	Val	Ser	Ala	Thr	Leu	Thr	Val	Thr	Pro	Ile	Met	Ile	Thr	Ser	Met	
	2915						2920					2925				
Leu	Lys	Asp	Ile	Asn	Ala	Glu	Glu	Lys	Asp	Thr	Ile	Thr	Phe	Glu	Val	
	2930					2935					2940					
Thr	Val	Asn	Tyr	Glu	Gly	Ile	Ser	Tyr	Lys	Trp	Leu	Lys	Asn	Gly	Val	
2945					2950					2955					2960	
Glu	Ile	Lys	Ser	Thr	Asp	Lys	Cys	Gln	Met	Arg	Thr	Lys	Lys	Leu	Thr	
			2965						2970					2975		
His	Ser	Leu	Asn	Ile	Arg	Asn	Val	His	Phe	Gly	Asp	Ala	Ala	Asp	Tyr	
		2980						2985					2990			
Thr	Phe	Val	Ala	Gly	Lys	Ala	Thr	Ser	Thr	Ala	Thr	Leu	Tyr	Val	Glu	
	2995						3000					3005				
Ala	Arg	His	Ile	Glu	Phe	Arg	Lys	His	Ile	Lys	Asp	Ile	Lys	Val	Leu	
	3010					3015					3020					
Glu	Lys	Lys	Arg	Ala	Met	Phe	Glu	Cys	Glu	Val	Ser	Glu	Pro	Asp	Ile	
3025					3030					3035					3040	
Thr	Val	Gln	Trp	Met	Lys	Asp	Asp	Gln	Glu	Leu	Gln	Ile	Thr	Asp	Arg	
			3045						3050					3055		
Ile	Lys	Ile	Gln	Lys	Glu	Lys	Tyr	Val	His	Arg	Leu	Leu	Ile	Pro	Ser	
		3060						3065					3070			
Thr	Arg	Met	Ser	Asp	Ala	Gly	Lys	Tyr	Thr	Val	Val	Ala	Gly	Gly	Asn	
	3075						3080					3085				
Val	Ser	Thr	Ala	Lys	Leu	Phe	Val	Glu	Gly	Arg	Asp	Val	Arg	Ile	Arg	
	3090					3095					3100					
Ser	Ile	Lys	Lys	Glu	Val	Gln	Val	Ile	Glu	Lys	Gln	Arg	Ala	Val	Val	
3105					3110					3115					3120	
Glu	Phe	Glu	Val	Asn	Glu	Asp	Asp	Val	Asp	Ala	His	Trp	Tyr	Lys	Asp	
			3125						3130					3135		
Gly	Ile	Glu	Ile	Asn	Phe	Gln	Val	Gln	Glu	Arg	His	Lys	Tyr	Val	Val	
	3140							3145					3150			
Glu	Arg	Arg	Ile	His	Arg	Met	Phe	Ile	Ser	Glu	Thr	Arg	Gln	Ser	Asp	
	3155						3160					3165				
Ala	Gly	Glu	Tyr	Thr	Phe	Val	Ala	Gly	Arg	Asn	Arg	Ser	Ser	Val	Thr	
	3170					3175					3180					
Leu	Tyr	Val	Asn	Ala	Pro	Glu	Pro	Pro	Gln	Val	Leu	Gln	Glu	Leu	Gln	
3185					3190					3195					3200	

Pro Val Thr Val Gln Ser Gly Lys Pro Ala Arg Phe Cys Ala Met Ile
 3205 3210 3215
 Ser Gly Arg Pro Gln Pro Lys Ile Ser Trp Tyr Lys Glu Glu Gln Leu
 3220 3225 3230
 Leu Ser Thr Gly Phe Lys Cys Lys Phe Leu His Asp Gly Gln Glu Tyr
 3235 3240 3245
 Thr Leu Leu Leu Ile Glu Ala Phe Pro Glu Asp Ala Ala Val Tyr Thr
 3250 3255 3260
 Cys Glu Ala Lys Asn Asp Tyr Gly Val Ala Thr Thr Ser Ala Ser Leu
 3265 3270 3275 3280
 Ser Val Glu Val Pro Glu Val Val Ser Pro Asp Gln Glu Met Pro Val
 3285 3290 3295
 Tyr Pro Pro Ala Ile Ile Thr Pro Leu Gln Asp Thr Val Thr Ser Glu
 3300 3305 3310
 Gly Gln Pro Ala Arg Phe Gln Cys Arg Val Ser Gly Thr Asp Leu Lys
 3315 3320 3325
 Val Ser Trp Tyr Ser Lys Asp Lys Lys Ile Lys Pro Ser Arg Phe Phe
 3330 3335 3340
 Arg Met Thr Gln Phe Glu Asp Thr Tyr Gln Leu Glu Ile Ala Glu Ala
 3345 3350 3355 3360
 Tyr Pro Glu Asp Glu Gly Thr Tyr Thr Phe Val Ala Asn Asn Ala Val
 3365 3370 3375
 Gly Gln Val Ser Ser Thr Ala Asn Leu Ser Leu Glu Ala Pro Glu Ser
 3380 3385 3390
 Ile Leu His Glu Arg Ile Glu Gln Glu Ile Glu Met Glu Met Lys Glu
 3395 3400 3405
 Phe Ser Ser Ser Phe Leu Ser Ala Glu Glu Glu Gly Leu His Ser Ala
 3410 3415 3420
 Glu Leu Gln Leu Ser Lys Ile Asn Glu Thr Leu Glu Leu Leu Ser Glu
 3425 3430 3435 3440
 Ser Pro Val Tyr Pro Thr Lys Phe Asp Ser Glu Lys Glu Gly Thr Gly
 3445 3450 3455
 Pro Ile Phe Ile Lys Glu Val Ser Asn Ala Asp Ile Ser Met Gly Asp
 3460 3465 3470
 Val Ala Thr Leu Ser Val Thr Val Ile Gly Ile Pro Lys Pro Lys Ile
 3475 3480 3485
 Gln Trp Phe Phe Asn Gly Val Leu Leu Thr Pro Ser Ala Asp Tyr Lys
 3490 3495 3500
 Phe Val Phe Asp Gly Asp Asp His Ser Leu Ile Ile Leu Phe Thr Lys
 3505 3510 3515 3520
 Leu Glu Asp Glu Gly Glu Tyr Thr Cys Met Ala Ser Asn Asp Tyr Gly
 3525 3530 3535
 Lys Thr Ile Cys Ser Ala Tyr Leu Lys Ile Asn Ser Lys Gly Glu Gly
 3540 3545 3550
 His Lys Asp Thr Glu Thr Glu Ser Ala Val Ala Lys Ser Leu Glu Lys
 3555 3560 3565
 Leu Gly Gly Pro Cys Pro Pro His Phe Leu Lys Glu Leu Lys Pro Ile
 3570 3575 3580
 Arg Cys Ala Gln Gly Leu Pro Ala Ile Phe Glu Tyr Thr Val Val Gly
 3585 3590 3595 3600
 Glu Pro Ala Pro Thr Val Thr Trp Phe Lys Glu Asn Lys Gln Leu Cys
 3605 3610 3615
 Thr Ser Val Tyr Tyr Thr Ile Ile His Asn Pro Asn Gly Ser Gly Thr
 3620 3625 3630
 Phe Ile Val Asn Asp Pro Gln Arg Glu Asp Ser Gly Leu Tyr Ile Cys
 3635 3640 3645
 Lys Ala Glu Asn Met Leu Gly Glu Ser Thr Cys Ala Ala Glu Leu Leu
 3650 3655 3660

Val	Leu	Leu	Glu	Asp	Thr	Asp	Met	Thr	Asp	Thr	Pro	Cys	Lys	Ala	Lys	
3665						3670					3675					3680
Ser	Thr	Pro	Glu	Ala	Pro	Glu	Asp	Phe	Pro	Gln	Thr	Pro	Leu	Lys	Gly	
				3685					3690						3695	
Pro	Ala	Val	Glu	Ala	Leu	Asp	Ser	Glu	Gln	Glu	Ile	Ala	Thr	Phe	Val	
				3700				3705						3710		
Lys	Asp	Thr	Ile	Leu	Lys	Ala	Ala	Leu	Ile	Thr	Glu	Glu	Asn	Gln	Gln	
		3715					3720						3725			
Leu	Ser	Tyr	Glu	His	Ile	Ala	Lys	Ala	Asn	Glu	Leu	Ser	Ser	Gln	Leu	
	3730					3735					3740					
Pro	Leu	Gly	Ala	Gln	Glu	Leu	Gln	Ser	Ile	Leu	Glu	Gln	Asp	Lys	Leu	
3745					3750					3755					3760	
Thr	Pro	Glu	Ser	Thr	Arg	Glu	Phe	Leu	Cys	Ile	Asn	Gly	Ser	Ile	His	
				3765					3770					3775		
Phe	Gln	Pro	Leu	Lys	Glu	Pro	Ser	Pro	Asn	Leu	Gln	Leu	Gln	Ile	Val	
			3780					3785						3790		
Gln	Ser	Gln	Lys	Thr	Phe	Ser	Lys	Glu	Gly	Ile	Leu	Met	Pro	Glu	Glu	
		3795					3800					3805				
Pro	Glu	Thr	Gln	Ala	Val	Leu	Ser	Asp	Thr	Glu	Lys	Ile	Phe	Pro	Ser	
	3810					3815					3820					
Ala	Met	Ser	Ile	Glu	Gln	Ile	Asn	Ser	Leu	Thr	Val	Glu	Pro	Leu	Lys	
3825					3830					3835					3840	
Thr	Leu	Leu	Ala	Glu	Pro	Glu	Gly	Asn	Tyr	Pro	Gln	Ser	Ser	Ile	Glu	
				3845					3850					3855		
Pro	Pro	Met	His	Ser	Tyr	Leu	Thr	Ser	Val	Ala	Glu	Glu	Val	Leu	Ser	
		3860						3865					3870			
Leu	Lys	Glu	Lys	Thr	Val	Ser	Asp	Thr	Asn	Arg	Glu	Gln	Arg	Val	Thr	
	3875					3880						3885				
Leu	Gln	Lys	Gln	Glu	Ala	Gln	Ser	Ala	Leu	Ile	Leu	Ser	Gln	Ser	Leu	
	3890					3895					3900					
Ala	Glu	Gly	His	Val	Glu	Ser	Leu	Gln	Ser	Pro	Asp	Val	Met	Ile	Ser	
3905					3910					3915					3920	
Gln	Val	Asn	Tyr	Glu	Pro	Leu	Val	Pro	Ser	Glu	His	Ser	Cys	Thr	Glu	
		3925							3930					3935		
Gly	Gly	Lys	Ile	Leu	Ile	Glu	Ser	Ala	Asn	Pro	Leu	Glu	Asn	Ala	Gly	
		3940						3945					3950			
Gln	Asp	Ser	Ala	Val	Arg	Ile	Glu	Glu	Gly	Lys	Ser	Leu	Arg	Phe	Pro	
	3955					3960						3965				
Leu	Ala	Leu	Glu	Glu	Lys	Gln	Val	Leu	Leu	Lys	Glu	Glu	His	Ser	Asp	
	3970				3975						3980					
Asn	Val	Val	Met	Pro	Pro	Asp	Gln	Ile	Ile	Glu	Ser	Lys	Arg	Glu	Pro	
3985					3990					3995					4000	
Val	Ala	Ile	Lys	Lys	Val	Gln	Glu	Val	Gln	Gly	Arg	Asp	Leu	Leu	Ser	
			4005						4010					4015		
Lys	Glu	Ser	Leu	Leu	Ser	Gly	Ile	Pro	Glu	Glu	Gln	Arg	Leu	Asn	Leu	
			4020					4025					4030			
Lys	Ile	Gln	Ile	Cys	Arg	Ala	Leu	Gln	Ala	Ala	Val	Ala	Ser	Glu	Gln	
	4035						4040					4045				
Pro	Gly	Leu	Phe	Ser	Glu	Trp	Leu	Arg	Asn	Ile	Glu	Lys	Val	Glu	Val	
	4050				4055						4060					
Glu	Ala	Val	Asn	Ile	Thr	Gln	Glu	Pro	Arg	His	Ile	Met	Cys	Met	Tyr	
4065				4070					4075						4080	
Leu	Val	Thr	Ser	Ala	Lys	Ser	Val	Thr	Glu	Glu	Val	Thr	Ile	Ile	Ile	
				4085					4090					4095		
Glu	Asp	Val	Asp	Pro	Gln	Met	Ala	Asn	Leu	Lys	Met	Glu	Leu	Arg	Asp	
		4100						4105					4110			
Ala	Leu	Cys	Ala	Ile	Ile	Tyr	Glu	Glu	Ile	Asp	Ile	Leu	Thr	Ala	Glu	
	4115						4120					4125				

Gly Pro Arg Ile Gln Gln Gly Ala Lys Thr Ser Leu Gln Glu Glu Met
 4130 4135 4140
 Asp Ser Phe Ser Gly Ser Gln Lys Val Glu Pro Ile Thr Glu Pro Glu
 4145 4150 4155 4160
 Val Glu Ser Lys Tyr Leu Ile Ser Thr Glu Glu Val Ser Tyr Phe Asn
 4165 4170 4175
 Val Gln Ser Arg Val Lys Tyr Leu Asp Ala Thr Pro Val Thr Lys Gly
 4180 4185 4190
 Val Ala Ser Ala Val Val Ser Asp Glu Lys Gln Asp Glu Ser Leu Lys
 4195 4200 4205
 Pro Ser Glu Glu Lys Glu Glu Ser Ser Ser Glu Ser Gly Thr Glu Glu
 4210 4215 4220
 Val Ala Thr Val Lys Ile Gln Glu Ala Glu Gly Gly Leu Ile Lys Glu
 4225 4230 4235 4240
 Asp Gly Pro Met Ile His Thr Pro Leu Val Asp Thr Val Ser Glu Glu
 4245 4250 4255
 Gly Asp Ile Val His Leu Thr Thr Ser Ile Thr Asn Ala Lys Glu Val
 4260 4265 4270
 Asn Trp Tyr Phe Glu Asn Lys Leu Val Pro Ser Asp Glu Lys Phe Lys
 4275 4280 4285
 Cys Leu Gln Asp Gln Asn Thr Tyr Thr Leu Val Ile Asp Lys Val Asn
 4290 4295 4300
 Thr Glu Asp His Gln Gly Glu Tyr Val Cys Glu Ala Leu Asn Asp Ser
 4305 4310 4315 4320
 Gly Lys Thr Ala Thr Ser Ala Lys Leu Thr Val Val Lys Arg Ala Ala
 4325 4330 4335
 Pro Val Ile Lys Arg Lys Ile Glu Pro Leu Glu Val Ala Leu Gly His
 4340 4345 4350
 Leu Ala Lys Phe Thr Cys Glu Ile Gln Ser Ala Pro Asn Val Arg Phe
 4355 4360 4365
 Gln Trp Phe Lys Ala Gly Arg Glu Ile Tyr Glu Ser Asp Lys Cys Ser
 4370 4375 4380
 Ile Arg Ser Ser Lys Tyr Ile Ser Ser Leu Glu Ile Leu Arg Thr Gln
 4385 4390 4395 4400
 Val Val Asp Cys Gly Glu Tyr Thr Cys Lys Ala Ser Asn Glu Tyr Gly
 4405 4410 4415
 Ser Val Ser Cys Thr Ala Thr Leu Thr Val Thr Val Pro Gly Gly Glu
 4420 4425 4430
 Lys Lys Val Arg Lys Leu Leu Pro Glu Arg Lys Pro Glu Pro Lys Glu
 4435 4440 4445
 Glu Val Val Leu Lys Ser Val Leu Arg Lys Arg Pro Glu Glu Glu Glu
 4450 4455 4460
 Pro Lys Val Glu Pro Lys Lys Leu Glu Lys Val Lys Lys Pro Ala Val
 4465 4470 4475 4480
 Pro Glu Pro Pro Pro Pro Lys Pro Val Glu Glu Val Glu Val Pro Thr
 4485 4490 4495
 Val Thr Lys Arg Glu Arg Lys Ile Pro Glu Pro Thr Lys Val Pro Glu
 4500 4505 4510
 Ile Lys Pro Ala Ile Pro Leu Pro Ala Pro Glu Pro Lys Pro Lys Pro
 4515 4520 4525
 Glu Ala Glu Val Lys Thr Ile Lys Pro Pro Pro Val Glu Pro Glu Pro
 4530 4535 4540
 Thr Pro Ile Ala Ala Pro Val Thr Val Pro Val Val Gly Lys Lys Ala
 4545 4550 4555 4560
 Glu Ala Lys Ala Pro Lys Glu Glu Ala Ala Lys Pro Lys Gly Pro Ile
 4565 4570 4575
 Lys Gly Val Pro Lys Lys Thr Pro Ser Pro Ile Glu Ala Glu Arg Arg
 4580 4585 4590

Lys Leu Arg Pro Gly Ser Gly Gly Glu Lys Pro Pro Asp Glu Ala Pro
 4595 4600 4605
 Phe Thr Tyr Gln Leu Lys Ala Val Pro Leu Lys Phe Val Lys Glu Ile
 4610 4615 4620
 Lys Asp Ile Ile Leu Thr Glu Ser Glu Phe Val Gly Ser Ser Ala Ile
 4625 4630 4635 4640
 Phe Glu Cys Leu Val Ser Pro Ser Thr Ala Ile Thr Thr Trp Met Lys
 4645 4650 4655
 Asp Gly Ser Asn Ile Arg Glu Ser Pro Lys His Arg Phe Ile Ala Asp
 4660 4665 4670
 Gly Lys Asp Arg Lys Leu His Ile Ile Asp Val Gln Leu Ser Asp Ala
 4675 4680 4685
 Gly Glu Tyr Thr Cys Val Leu Arg Leu Gly Asn Lys Glu Lys Thr Ser
 4690 4695 4700
 Thr Ala Lys Leu Val Val Glu Glu Leu Pro Val Arg Phe Val Lys Thr
 4705 4710 4715 4720
 Leu Glu Glu Glu Val Thr Val Val Lys Gly Gln Pro Leu Tyr Leu Ser
 4725 4730 4735
 Cys Glu Leu Asn Lys Glu Arg Asp Val Val Trp Arg Lys Asp Gly Lys
 4740 4745 4750
 Ile Val Val Glu Lys Pro Gly Arg Ile Val Pro Gly Val Ile Gly Leu
 4755 4760 4765
 Met Arg Ala Leu Thr Ile Asn Asp Ala Asp Asp Thr Asp Ala Gly Thr
 4770 4775 4780
 Tyr Thr Val Thr Val Glu Asn Ala Asn Asn Leu Glu Cys Ser Ser Cys
 4785 4790 4795 4800
 Val Lys Val Val Glu Val Ile Arg Asp Trp Leu Val Lys Pro Ile Arg
 4805 4810 4815
 Asp Gln His Val Lys Pro Lys Gly Thr Ala Ile Phe Ala Cys Asp Ile
 4820 4825 4830
 Ala Lys Asp Thr Pro Asn Ile Lys Trp Phe Lys Gly Tyr Asp Glu Ile
 4835 4840 4845
 Pro Ala Glu Pro Asn Asp Lys Thr Glu Ile Leu Arg Asp Gly Asn His
 4850 4855 4860
 Leu Tyr Leu Lys Ile Lys Asn Ala Met Pro Glu Asp Ile Ala Glu Tyr
 4865 4870 4875 4880
 Ala Val Glu Ile Glu Gly Lys Arg Tyr Pro Ala Lys Leu Thr Leu Gly
 4885 4890 4895
 Glu Arg Glu Val Glu Leu Leu Lys Pro Ile Glu Asp Val Thr Ile Tyr
 4900 4905 4910
 Glu Lys Glu Ser Ala Ser Phe Asp Ala Glu Ile Ser Glu Ala Asp Ile
 4915 4920 4925
 Pro Gly Gln Trp Lys Leu Lys Gly Glu Leu Leu Arg Pro Ser Pro Thr
 4930 4935 4940
 Cys Glu Ile Lys Ala Glu Gly Gly Lys Arg Phe Leu Thr Leu His Lys
 4945 4950 4955 4960
 Val Lys Leu Asp Gln Ala Gly Glu Val Leu Tyr Gln Ala Leu Asn Ala
 4965 4970 4975
 Ile Thr Thr Ala Ile Leu Thr Val Lys Glu Ile Glu Leu Asp Phe Ala
 4980 4985 4990
 Val Pro Leu Lys Asp Val Thr Val Pro Glu Arg Arg Gln Ala Arg Phe
 4995 5000 5005
 Glu Cys Val Leu Thr Arg Glu Ala Asn Val Ile Trp Ser Lys Gly Pro
 5010 5015 5020
 Asp Ile Ile Lys Ser Ser Asp Lys Phe Asp Ile Ala Asp Gly Lys
 5025 5030 5035 5040
 Lys His Ile Leu Val Ile Asn Asp Ser Gln Phe Asp Asp Glu Gly Val
 5045 5050 5055

Tyr Thr Ala Glu Val Glu Gly Lys Lys Thr Ser Ala Arg Leu Phe Val
 5060 5065 5070
 Thr Gly Ile Arg Leu Lys Phe Met Ser Pro Leu Glu Asp Gln Thr Val
 5075 5080 5085
 Lys Glu Gly Glu Thr Ala Thr Phe Val Cys Glu Leu Ser His Glu Lys
 5090 5095 5100
 Met His Val Val Trp Phe Lys Asn Asp Ala Lys Leu His Thr Ser Arg
 5105 5110 5115 5120
 Thr Val Leu Ile Ser Ser Glu Gly Lys Thr His Lys Leu Glu Met Lys
 5125 5130 5135
 Glu Val Thr Leu Asp Asp Ile Ser Gln Ile Lys Ala Gln Val Lys Glu
 5140 5145 5150
 Leu Ser Ser Thr Ala Gln Leu Lys Val Leu Glu Ala Asp Pro Tyr Phe
 5155 5160 5165
 Thr Val Lys Leu His Asp Lys Thr Ala Val Glu Lys Asp Glu Ile Thr
 5170 5175 5180
 Leu Lys Cys Glu Val Ser Lys Asp Val Pro Val Lys Trp Phe Lys Asp
 5185 5190 5195 5200
 Gly Glu Glu Ile Val Pro Ser Pro Lys Tyr Ser Ile Lys Ala Asp Gly
 5205 5210 5215
 Leu Arg Arg Ile Leu Lys Ile Lys Lys Ala Asp Leu Lys Asp Lys Gly
 5220 5225 5230
 Glu Tyr Val Cys Asp Cys Gly Thr Asp Lys Thr Lys Ala Asn Val Thr
 5235 5240 5245
 Val Glu Ala Arg Leu Ile Glu Val Glu Lys Pro Leu Tyr Gly Val Glu
 5250 5255 5260
 Val Phe Val Gly Glu Thr Ala His Phe Glu Ile Glu Leu Ser Glu Pro
 5265 5270 5275 5280
 Asp Val His Gly Gln Trp Lys Leu Lys Gly Gln Pro Leu Thr Ala Ser
 5285 5290 5295
 Pro Asp Cys Glu Ile Ile Glu Asp Gly Lys Lys His Ile Leu Ile Leu
 5300 5305 5310
 His Asn Cys Gln Leu Gly Met Thr Gly Glu Val Ser Phe Gln Ala Ala
 5315 5320 5325
 Asn Ala Lys Ser Ala Ala Asn Leu Lys Val Lys Glu Leu Pro Leu Ile
 5330 5335 5340
 Phe Ile Thr Pro Leu Ser Asp Val Lys Val Phe Glu Lys Asp Glu Ala
 5345 5350 5355 5360
 Lys Phe Glu Cys Glu Val Ser Arg Glu Pro Lys Thr Phe Arg Trp Leu
 5365 5370 5375
 Lys Gly Thr Gln Glu Ile Thr Gly Asp Asp Arg Phe Glu Leu Ile Lys
 5380 5385 5390
 Asp Gly Thr Lys His Ser Met Val Ile Lys Ser Ala Ala Phe Glu Asp
 5395 5400 5405
 Glu Ala Lys Tyr Met Phe Glu Ala Glu Asp Lys His Thr Ser Gly Lys
 5410 5415 5420
 Leu Ile Ile Glu Gly Ile Arg Leu Lys Phe Leu Thr Pro Leu Lys Asp
 5425 5430 5435 5440
 Val Thr Ala Lys Glu Lys Glu Ser Ala Val Phe Thr Val Glu Leu Ser
 5445 5450 5455
 His Asp Asn Ile Arg Val Lys Trp Phe Lys Asn Asp Gln Arg Leu His
 5460 5465 5470
 Thr Thr Arg Ser Val Ser Met Gln Asp Glu Gly Lys Thr His Ser Ile
 5475 5480 5485
 Thr Phe Lys Asp Leu Ser Ile Asp Asp Thr Ser Gln Ile Arg Val Glu
 5490 5495 5500
 Ala Met Gly Met Ser Ser Glu Ala Lys Leu Thr Val Leu Glu Gly Asp
 5505 5510 5515 5520

Pro	Tyr	Phe	Thr	Gly	Lys	Leu	Gln	Asp	Tyr	Thr	Gly	Val	Glu	Lys	Asp	
				5525					5530						5535	
Glu	Val	Ile	Leu	Gln	Cys	Glu	Ile	Ser	Lys	Ala	Asp	Ala	Pro	Val	Lys	
			5540					5545					5550			
Trp	Phe	Lys	Asp	Gly	Lys	Glu	Ile	Lys	Pro	Ser	Lys	Asn	Ala	Val	Ile	
		5555					5560					5565				
Lys	Thr	Asp	Gly	Lys	Lys	Arg	Met	Leu	Ile	Leu	Lys	Lys	Ala	Leu	Lys	
	5570					5575					5580					
Ser	Asp	Ile	Gly	Gln	Tyr	Thr	Cys	Asp	Cys	Gly	Thr	Asp	Lys	Thr	Ser	
5585					5590					5595					5600	
Gly	Lys	Leu	Asp	Ile	Glu	Asp	Arg	Glu	Ile	Lys	Leu	Val	Arg	Pro	Leu	
			5605					5610						5615		
His	Ser	Val	Glu	Val	Met	Glu	Thr	Glu	Thr	Ala	Arg	Phe	Glu	Thr	Glu	
			5620					5625					5630			
Ile	Ser	Glu	Asp	Asp	Ile	His	Ala	Asn	Trp	Lys	Leu	Lys	Gly	Glu	Ala	
		5635					5640					5645				
Leu	Leu	Gln	Thr	Pro	Asp	Cys	Glu	Ile	Lys	Glu	Glu	Gly	Lys	Ile	His	
	5650					5655					5660					
Ser	Leu	Val	Leu	His	Asn	Cys	Arg	Leu	Asp	Gln	Thr	Gly	Gly	Val	Asp	
5665				5670						5675					5680	
Phe	Gln	Ala	Ala	Asn	Val	Lys	Ser	Ser	Ala	His	Leu	Arg	Val	Lys	Pro	
				5685					5690					5695		
Arg	Val	Ile	Gly	Leu	Leu	Arg	Pro	Leu	Lys	Asp	Val	Thr	Val	Thr	Ala	
			5700					5705					5710			
Gly	Glu	Thr	Ala	Thr	Phe	Asp	Cys	Glu	Leu	Ser	Tyr	Glu	Asp	Ile	Pro	
		5715					5720					5725				
Val	Glu	Trp	Tyr	Leu	Lys	Gly	Lys	Lys	Leu	Glu	Pro	Ser	Asp	Lys	Val	
	5730					5735					5740					
Val	Pro	Arg	Ser	Glu	Gly	Lys	Val	His	Thr	Leu	Thr	Leu	Arg	Asp	Val	
5745				5750						5755					5760	
Lys	Leu	Glu	Asp	Ala	Gly	Glu	Val	Gln	Leu	Thr	Ala	Lys	Asp	Phe	Lys	
			5765					5770						5775		
Thr	His	Ala	Asn	Leu	Phe	Val	Lys	Glu	Pro	Pro	Val	Glu	Phe	Thr	Lys	
		5780						5785					5790			
Pro	Leu	Glu	Asp	Gln	Thr	Val	Glu	Glu	Gly	Ala	Thr	Ala	Val	Leu	Glu	
	5795						5800					5805				
Cys	Glu	Val	Ser	Arg	Glu	Asn	Ala	Lys	Val	Lys	Trp	Phe	Lys	Asn	Gly	
	5810					5815					5820					
Thr	Glu	Ile	Leu	Lys	Ser	Lys	Lys	Tyr	Glu	Ile	Val	Ala	Asp	Gly	Arg	
5825				5830						5835					5840	
Val	Arg	Lys	Leu	Val	Ile	His	Asp	Cys	Thr	Pro	Glu	Asp	Ile	Lys	Thr	
			5845					5850						5855		
Tyr	Thr	Cys	Asp	Ala	Lys	Asp	Phe	Lys	Thr	Ser	Cys	Asn	Leu	Asn	Val	
		5860						5865					5870			
Val	Pro	Pro	His	Val	Glu	Phe	Leu	Arg	Pro	Leu	Thr	Asp	Leu	Gln	Val	
	5875						5880					5885				
Arg	Glu	Lys	Glu	Met	Ala	Arg	Phe	Glu	Cys	Glu	Leu	Ser	Arg	Glu	Asn	
	5890					5895					5900					
Ala	Lys	Val	Lys	Trp	Phe	Lys	Asp	Gly	Ala	Glu	Ile	Lys	Lys	Gly	Lys	
5905				5910						5915					5920	
Lys	Tyr	Asp	Ile	Ile	Ser	Lys	Gly	Ala	Val	Arg	Ile	Leu	Val	Ile	Asn	
			5925							5930				5935		
Lys	Cys	Leu	Leu	Asp	Asp	Glu	Ala	Glu	Tyr	Ser	Cys	Glu	Val	Arg	Thr	
		5940						5945					5950			
Ala	Arg	Thr	Ser	Gly	Met	Leu	Thr	Val	Leu	Glu	Glu	Glu	Ala	Val	Phe	
	5955						5960						5965			
Thr	Lys	Asn	Leu	Ala	Asn	Ile	Glu	Val	Ser	Glu	Thr	Asp	Thr	Ile	Lys	
	5970					5975					5980					

Leu Val Cys Glu Val Ser Lys Pro Gly Ala Glu Val Ile Trp Tyr Lys
 5985 5990 5995 6000
 Gly Asp Glu Glu Ile Ile Glu Thr Gly Arg Tyr Glu Ile Leu Thr Glu
 6005 6010 6015
 Gly Arg Lys Arg Ile Leu Val Ile Gln Asn Ala His Leu Glu Asp Ala
 6020 6025 6030
 Gly Asn Tyr Asn Cys Arg Leu Pro Ser Ser Arg Thr Asp Gly Lys Val
 6035 6040 6045
 Lys Val His Glu Leu Ala Ala Glu Phe Ile Ser Lys Pro Gln Asn Leu
 6050 6055 6060
 Glu Ile Leu Glu Gly Glu Lys Ala Glu Phe Val Cys Ser Ile Ser Lys
 6065 6070 6075 6080
 Glu Ser Phe Pro Val Gln Trp Lys Arg Asp Asp Lys Thr Leu Glu Ser
 6085 6090 6095
 Gly Asp Lys Tyr Asp Val Ile Ala Asp Gly Lys Lys Arg Val Leu Val
 6100 6105 6110
 Val Lys Asp Ala Thr Leu Gln Asp Met Gly Thr Tyr Val Val Met Val
 6115 6120 6125
 Gly Ala Ala Arg Ala Ala Ala His Leu Thr Val Ile Glu Lys Leu Arg
 6130 6135 6140
 Ile Val Val Pro Leu Lys Asp Thr Arg Val Lys Glu Gln Gln Glu Val
 6145 6150 6155 6160
 Val Phe Asn Cys Glu Val Asn Thr Glu Gly Ala Lys Ala Lys Trp Phe
 6165 6170 6175
 Arg Asn Glu Glu Ala Ile Phe Asp Ser Ser Lys Tyr Ile Ile Leu Gln
 6180 6185 6190
 Lys Asp Leu Val Tyr Thr Leu Arg Ile Arg Asp Ala His Leu Asp Asp
 6195 6200 6205
 Gln Ala Asn Tyr Asn Val Ser Leu Thr Asn His Arg Gly Glu Asn Val
 6210 6215 6220
 Lys Ser Ala Ala Asn Leu Ile Val Glu Glu Glu Asp Leu Arg Ile Val
 6225 6230 6235 6240
 Glu Pro Leu Lys Asp Ile Glu Thr Met Glu Lys Lys Ser Val Thr Phe
 6245 6250 6255
 Trp Cys Lys Val Asn Arg Leu Asn Val Thr Leu Lys Trp Thr Lys Asn
 6260 6265 6270
 Gly Glu Glu Val Pro Phe Asp Asn Arg Val Ser Tyr Arg Val Asp Lys
 6275 6280 6285
 Tyr Lys His Met Leu Thr Ile Lys Asp Cys Gly Phe Pro Asp Glu Gly
 6290 6295 6300
 Glu Tyr Ile Val Thr Ala Gly Gln Asp Lys Ser Val Ala Glu Leu Leu
 6305 6310 6315 6320
 Ile Ile Glu Ala Pro Thr Glu Phe Val Glu His Leu Glu Asp Gln Thr
 6325 6330 6335
 Val Thr Glu Phe Asp Asp Ala Val Phe Ser Cys Gln Leu Ser Arg Glu
 6340 6345 6350
 Lys Ala Asn Val Lys Trp Tyr Arg Asn Gly Arg Glu Ile Lys Glu Gly
 6355 6360 6365
 Lys Lys Tyr Lys Phe Glu Lys Asp Gly Ser Ile His Arg Leu Ile Ile
 6370 6375 6380
 Lys Asp Cys Arg Leu Asp Asp Glu Cys Glu Tyr Ala Cys Gly Val Glu
 6385 6390 6395 6400
 Asp Arg Lys Ser Arg Ala Arg Leu Phe Val Glu Glu Ile Pro Val Glu
 6405 6410 6415
 Ile Ile Arg Pro Pro Gln Asp Ile Leu Glu Ala Pro Gly Ala Asp Val
 6420 6425 6430
 Val Phe Leu Ala Glu Leu Asn Lys Asp Lys Val Glu Val Gln Trp Leu
 6435 6440 6445

Arg	Asn	Asn	Met	Val	Val	Val	Gln	Gly	Asp	Lys	His	Gln	Met	Met	Ser
6450						6455					6460				
Glu	Gly	Lys	Ile	His	Arg	Leu	Gln	Ile	Cys	Asp	Ile	Lys	Pro	Arg	Asp
6465					6470					6475					6480
Gln	Gly	Glu	Tyr	Arg	Phe	Ile	Ala	Lys	Asp	Lys	Glu	Ala	Arg	Ala	Lys
				6485						6490					6495
Leu	Glu	Leu	Ala	Ala	Ala	Pro	Lys	Ile	Lys	Thr	Ala	Asp	Gln	Asp	Leu
			6500							6505				6510	
Val	Val	Asp	Val	Gly	Lys	Pro	Leu	Thr	Met	Val	Val	Pro	Tyr	Asp	Ala
		6515					6520					6525			
Tyr	Pro	Lys	Ala	Glu	Ala	Glu	Trp	Phe	Lys	Glu	Asn	Glu	Pro	Leu	Ser
	6530					6535					6540				
Thr	Lys	Thr	Ile	Asp	Thr	Ala	Glu	Gln	Thr	Ser	Phe	Arg	Ile	Leu	
6545					6550					6555					6560
Glu	Ala	Lys	Lys	Gly	Asp	Lys	Gly	Arg	Tyr	Lys	Ile	Val	Leu	Gln	Asn
				6565						6570					6575
Lys	His	Gly	Lys	Ala	Glu	Gly	Phe	Ile	Asn	Leu	Lys	Val	Ile	Asp	Val
			6580					6585						6590	
Pro	Gly	Pro	Val	Arg	Asn	Leu	Glu	Val	Thr	Glu	Thr	Phe	Asp	Gly	Glu
		6595					6600					6605			
Val	Ser	Leu	Ala	Trp	Glu	Glu	Pro	Leu	Thr	Asp	Gly	Gly	Ser	Lys	Ile
	6610					6615					6620				
Ile	Gly	Tyr	Val	Val	Glu	Arg	Arg	Asp	Ile	Lys	Arg	Lys	Thr	Trp	Val
6625					6630					6635					6640
Leu	Ala	Thr	Asp	Arg	Ala	Glu	Ser	Cys	Glu	Phe	Thr	Val	Thr	Gly	Leu
				6645						6650					6655
Gln	Lys	Gly	Gly	Val	Glu	Tyr	Leu	Phe	Arg	Val	Ser	Ala	Arg	Asn	Arg
			6660					6665						6670	
Val	Gly	Thr	Gly	Glu	Pro	Val	Glu	Thr	Asp	Asn	Pro	Val	Glu	Ala	Arg
		6675					6680					6685			
Ser	Lys	Tyr	Asp	Val	Pro	Gly	Pro	Pro	Leu	Asn	Val	Thr	Ile	Thr	Asp
	6690					6695					6700				
Val	Asn	Arg	Phe	Gly	Val	Ser	Leu	Thr	Trp	Glu	Pro	Pro	Glu	Tyr	Asp
6705					6710					6715					6720
Gly	Gly	Ala	Glu	Ile	Thr	Asn	Tyr	Val	Ile	Glu	Leu	Arg	Asp	Lys	Thr
				6725						6730					6735
Ser	Ile	Arg	Trp	Asp	Thr	Ala	Met	Thr	Val	Arg	Ala	Glu	Asp	Leu	Ser
			6740					6745						6750	
Ala	Thr	Val	Thr	Asp	Val	Val	Glu	Gly	Gln	Glu	Tyr	Ser	Phe	Arg	Val
		6755					6760					6765			
Arg	Ala	Gln	Asn	Arg	Ile	Gly	Val	Gly	Lys	Pro	Ser	Ala	Ala	Thr	Pro
	6770					6775					6780				
Phe	Val	Lys	Val	Ala	Asp	Pro	Ile	Glu	Arg	Pro	Ser	Pro	Pro	Val	Asn
6785					6790					6795					6800
Leu	Thr	Ser	Ser	Asp	Gln	Thr	Gln	Ser	Ser	Val	Gln	Leu	Lys	Trp	Glu
				6805						6810					6815
Pro	Pro	Leu	Lys	Asp	Gly	Gly	Ser	Pro	Ile	Leu	Gly	Tyr	Ile	Ile	Glu
			6820					6825						6830	
Arg	Cys	Glu	Gly	Lys	Asp	Asn	Trp	Ile	Arg	Cys	Asn	Met	Lys	Leu	
		6835				6840					6845				
Val	Pro	Glu	Leu	Thr	Tyr	Lys	Val	Thr	Gly	Leu	Glu	Lys	Gly	Asn	Lys
	6850					6855					6860				
Tyr	Leu	Tyr	Arg	Val	Ser	Ala	Glu	Asn	Lys	Ala	Gly	Val	Ser	Asp	Pro
6865					6870					6875					6880
Ser	Glu	Ile	Leu	Gly	Pro	Leu	Thr	Ala	Asp	Asp	Ala	Phe	Val	Glu	Pro
				6885						6890					6895
Thr	Met	Asp	Leu	Ser	Ala	Phe	Lys	Asp	Gly	Leu	Glu	Val	Ile	Val	Pro
			6900					6905							6910

Asn	Pro	Ile	Thr	Ile	Leu	Val	Pro	Ser	Thr	Gly	Tyr	Pro	Arg	Pro	Thr
		6915					6920					6925			
Ala	Thr	Trp	Cys	Phe	Gly	Asp	Lys	Val	Leu	Glu	Thr	Gly	Asp	Arg	Val
		6930					6935					6940			
Lys	Met	Lys	Thr	Leu	Ser	Ala	Tyr	Ala	Glu	Leu	Val	Ile	Ser	Pro	Ser
		6945				6950					6955				6960
Glu	Arg	Ser	Asp	Lys	Gly	Ile	Tyr	Thr	Leu	Lys	Leu	Glu	Asn	Arg	Val
				6965						6970				6975	
Lys	Thr	Ile	Ser	Gly	Glu	Ile	Asp	Val	Asn	Val	Ile	Ala	Arg	Pro	Ser
			6980					6985					6990		
Ala	Pro	Lys	Glu	Leu	Lys	Phe	Gly	Asp	Ile	Thr	Lys	Asp	Ser	Val	His
		6995					7000					7005			
Leu	Thr	Trp	Glu	Pro	Pro	Asp	Asp	Gly	Gly	Ser	Pro	Leu	Thr	Gly	
		7010				7015					7020				
Tyr	Val	Val	Glu	Lys	Arg	Glu	Val	Ser	Arg	Lys	Thr	Trp	Thr	Lys	Val
		7025			7030					7035					7040
Met	Asp	Phe	Val	Thr	Asp	Leu	Glu	Phe	Thr	Val	Pro	Asp	Leu	Val	Gln
				7045					7050					7055	
Gly	Lys	Glu	Tyr	Leu	Phe	Lys	Val	Cys	Ala	Arg	Asn	Lys	Cys	Gly	Pro
			7060					7065					7070		
Gly	Glu	Pro	Ala	Tyr	Val	Asp	Glu	Pro	Val	Asn	Met	Ser	Thr	Pro	Ala
		7075				7080						7085			
Thr	Val	Pro	Asp	Pro	Pro	Glu	Asn	Val	Lys	Trp	Arg	Asp	Arg	Thr	Ala
		7090			7095						7100				
Asn	Ser	Ile	Phe	Leu	Thr	Trp	Asp	Pro	Pro	Lys	Asn	Asp	Gly	Gly	Ser
		7105			7110					7115					7120
Arg	Ile	Lys	Gly	Tyr	Ile	Val	Glu	Arg	Cys	Pro	Arg	Gly	Ser	Asp	Lys
			7125					7130					7135		
Trp	Val	Ala	Cys	Gly	Glu	Pro	Val	Ala	Glu	Thr	Lys	Met	Glu	Val	Thr
			7140					7145					7150		
Gly	Leu	Glu	Glu	Gly	Lys	Trp	Tyr	Ala	Tyr	Arg	Val	Lys	Thr	Leu	Asn
		7155					7160					7165			
Arg	Gln	Gly	Ala	Ser	Lys	Pro	Ser	Arg	Pro	Thr	Glu	Glu	Ile	Gln	Ala
		7170			7175						7180				
Val	Asp	Thr	Gln	Glu	Ala	Pro	Glu	Ile	Phe	Leu	Asp	Val	Lys	Leu	Leu
		7185			7190				7195						7200
Ala	Gly	Leu	Thr	Val	Lys	Ala	Gly	Thr	Lys	Ile	Glu	Leu	Pro	Ala	Thr
			7205					7210						7215	
Val	Thr	Gly	Lys	Pro	Glu	Pro	Lys	Ile	Thr	Trp	Thr	Lys	Ala	Asp	Met
			7220					7225					7230		
Ile	Leu	Lys	Gln	Asp	Lys	Arg	Ile	Thr	Ile	Glu	Asn	Val	Pro	Lys	Lys
		7235				7240					7245				
Ser	Thr	Val	Thr	Ile	Val	Asp	Ser	Lys	Arg	Ser	Asp	Thr	Gly	Thr	Tyr
		7250			7255						7260				
Ile	Ile	Glu	Ala	Val	Asn	Val	Cys	Gly	Arg	Ala	Thr	Ala	Val	Val	Glu
		7265			7270				7275						7280
Val	Asn	Val	Leu	Asp	Lys	Pro	Gly	Pro	Pro	Ala	Ala	Phe	Asp	Ile	Thr
			7285					7290					7295		
Asp	Val	Thr	Asn	Glu	Ser	Cys	Leu	Leu	Thr	Trp	Asn	Pro	Pro	Arg	Asp
			7300					7305					7310		
Asp	Gly	Gly	Ser	Lys	Ile	Thr	Asn	Tyr	Val	Val	Glu	Arg	Arg	Ala	Thr
		7315				7320					7325				
Asp	Ser	Glu	Val	Trp	His	Lys	Leu	Ser	Ser	Thr	Val	Lys	Asp	Thr	Asn
		7330			7335						7340				
Phe	Lys	Ala	Thr	Lys	Leu	Ile	Pro	Asn	Lys	Glu	Tyr	Ile	Phe	Arg	Val
		7345			7350				7355						7360
Ala	Ala	Glu	Asn	Met	Tyr	Gly	Ala	Gly	Glu	Pro	Val	Gln	Ala	Ser	Pro
			7365					7370					7375		

Ile	Thr	Ala	Lys	Tyr	Gln	Phe	Asp	Pro	Pro	Gly	Pro	Pro	Thr	Arg	Leu
			7380					7385					7390		
Glu	Pro	Ser	Asp	Ile	Thr	Lys	Asp	Ala	Val	Thr	Leu	Thr	Trp	Cys	Glu
		7395					7400					7405			
Pro	Asp	Asp	Asp	Gly	Gly	Ser	Pro	Ile	Thr	Gly	Tyr	Trp	Val	Glu	Arg
		7410				7415					7420				
Leu	Asp	Pro	Asp	Thr	Asp	Lys	Trp	Val	Arg	Cys	Asn	Lys	Met	Pro	Val
7425					7430					7435				7440	
Lys	Asp	Thr	Thr	Tyr	Arg	Val	Lys	Gly	Leu	Thr	Asn	Lys	Lys	Lys	Tyr
			7445						7450					7455	
Arg	Phe	Arg	Val	Leu	Ala	Glu	Asn	Leu	Ala	Gly	Pro	Gly	Lys	Pro	Ser
			7460					7465					7470		
Lys	Ser	Thr	Glu	Pro	Ile	Leu	Ile	Lys	Asp	Pro	Ile	Asp	Pro	Pro	Trp
		7475				7480						7485			
Pro	Pro	Gly	Lys	Pro	Thr	Val	Lys	Asp	Val	Gly	Lys	Thr	Ser	Val	Arg
		7490				7495					7500				
Leu	Asn	Trp	Thr	Lys	Pro	Glu	His	Asp	Gly	Gly	Ala	Lys	Ile	Glu	Ser
7505					7510					7515				7520	
Tyr	Val	Ile	Glu	Met	Leu	Lys	Thr	Gly	Thr	Asp	Glu	Trp	Val	Arg	Val
			7525						7530					7535	
Ala	Glu	Gly	Val	Pro	Thr	Thr	Gln	His	Leu	Leu	Pro	Gly	Leu	Met	Glu
			7540					7545					7550		
Gly	Gln	Glu	Tyr	Ser	Phe	Arg	Val	Arg	Ala	Val	Asn	Lys	Ala	Gly	Glu
		7555					7560					7565			
Ser	Glu	Pro	Ser	Glu	Pro	Ser	Asp	Pro	Val	Leu	Cys	Arg	Glu	Lys	Leu
		7570				7575					7580				
Tyr	Pro	Pro	Ser	Pro	Pro	Arg	Trp	Leu	Glu	Val	Ile	Asn	Ile	Thr	Lys
7585					7590					7595				7600	
Asn	Thr	Ala	Asp	Leu	Lys	Trp	Thr	Val	Pro	Glu	Lys	Asp	Gly	Gly	Ser
			7605						7610					7615	
Pro	Ile	Thr	Asn	Tyr	Ile	Val	Glu	Lys	Arg	Asp	Val	Arg	Arg	Lys	Gly
			7620					7625					7630		
Trp	Gln	Thr	Val	Asp	Thr	Thr	Val	Lys	Asp	Thr	Lys	Cys	Thr	Val	Thr
		7635					7640					7645			
Pro	Leu	Thr	Glu	Gly	Ser	Leu	Tyr	Val	Phe	Arg	Val	Ala	Ala	Glu	Asn
		7650				7655					7660				
Ala	Ile	Gly	Gln	Ser	Asp	Tyr	Thr	Glu	Ile	Glu	Asp	Ser	Val	Leu	Ala
7665					7670					7675				7680	
Lys	Asp	Thr	Phe	Thr	Thr	Pro	Gly	Pro	Pro	Tyr	Ala	Leu	Ala	Val	Val
			7685						7690					7695	
Asp	Val	Thr	Lys	Arg	His	Val	Asp	Leu	Lys	Trp	Glu	Pro	Pro	Lys	Asn
		7700						7705					7710		
Asp	Gly	Gly	Arg	Pro	Ile	Gln	Arg	Tyr	Val	Ile	Glu	Lys	Lys	Glu	Arg
		7715					7720					7725			
Leu	Gly	Thr	Arg	Trp	Val	Lys	Ala	Gly	Lys	Thr	Ala	Gly	Pro	Asp	Cys
		7730				7735					7740				
Asn	Phe	Arg	Val	Thr	Asp	Val	Ile	Glu	Gly	Thr	Glu	Val	Gln	Phe	Gln
7745					7750					7755				7760	
Val	Arg	Ala	Glu	Asn	Glu	Ala	Gly	Val	Gly	His	Pro	Ser	Glu	Pro	Thr
			7765						7770					7775	
Glu	Ile	Leu	Ser	Ile	Glu	Asp	Pro	Thr	Ser	Pro	Pro	Ser	Pro	Pro	Leu
		7780						7785					7790		
Asp	Leu	His	Val	Thr	Asp	Ala	Gly	Arg	Lys	His	Ile	Ala	Ile	Ala	Trp
		7795					7800					7805			
Lys	Pro	Pro	Glu	Lys	Asn	Gly	Gly	Ser	Pro	Ile	Ile	Gly	Tyr	His	Val
		7810				7815					7820				
Glu	Met	Cys	Pro	Val	Gly	Thr	Glu	Lys	Trp	Met	Arg	Val	Asn	Ser	Arg
7825					7830					7835					7840

Pro Ile Lys Asp Leu Lys Phe Lys Val Glu Glu Gly Val Val Pro Asp
 7845 7850 7855
 Lys Glu Tyr Val Leu Arg Val Arg Ala Val Asn Ala Ile Gly Val Ser
 7860 7865 7870
 Glu Pro Ser Glu Ile Ser Glu Asn Val Val Ala Lys Asp Pro Asp Cys
 7875 7880 7885
 Lys Pro Thr Ile Asp Leu Glu Thr His Asp Ile Ile Val Ile Glu Gly
 7890 7895 7900
 Glu Lys Leu Ser Ile Pro Val Pro Phe Arg Ala Val Pro Val Pro Thr
 7905 7910 7915 7920
 Val Ser Trp His Lys Asp Gly Lys Glu Val Lys Ala Ser Asp Arg Leu
 7925 7930 7935
 Thr Met Lys Asn Asp His Ile Ser Ala His Leu Glu Val Pro Lys Ser
 7940 7945 7950
 Val Arg Ala Asp Ala Gly Ile Tyr Thr Ile Thr Leu Glu Asn Lys Leu
 7955 7960 7965
 Gly Ser Ala Thr Ala Ser Ile Asn Val Lys Val Ile Gly Leu Pro Gly
 7970 7975 7980
 Pro Cys Lys Asp Ile Lys Ala Ser Asp Ile Thr Lys Ser Ser Cys Lys
 7985 7990 7995 8000
 Leu Thr Trp Glu Pro Pro Glu Phe Asp Gly Gly Thr Pro Ile Leu His
 8005 8010 8015
 Tyr Val Leu Glu Arg Arg Glu Ala Gly Arg Arg Thr Tyr Ile Pro Val
 8020 8025 8030
 Met Ser Gly Glu Asn Lys Leu Ser Trp Thr Val Lys Asp Leu Ile Pro
 8035 8040 8045
 Asn Gly Glu Tyr Phe Phe Arg Val Lys Ala Val Asn Lys Val Gly Gly
 8050 8055 8060
 Gly Glu Tyr Ile Glu Leu Lys Asn Pro Val Ile Ala Gln Asp Pro Lys
 8065 8070 8075 8080
 Gln Pro Pro Asp Pro Pro Val Asp Val Glu Val His Asn Pro Thr Ala
 8085 8090 8095
 Glu Ala Met Thr Ile Thr Trp Lys Pro Pro Leu Tyr Asp Gly Gly Ser
 8100 8105 8110
 Lys Ile Met Gly Tyr Ile Ile Glu Lys Ile Ala Lys Gly Glu Glu Arg
 8115 8120 8125
 Trp Lys Arg Cys Asn Glu His Leu Val Pro Ile Leu Thr Tyr Thr Ala
 8130 8135 8140
 Lys Gly Leu Glu Glu Gly Lys Glu Tyr Gln Phe Arg Val Arg Ala Glu
 8145 8150 8155 8160
 Asn Ala Ala Gly Ile Ser Glu Pro Ser Arg Ala Thr Pro Pro Thr Lys
 8165 8170 8175
 Ala Val Asp Pro Ile Asp Ala Pro Lys Val Ile Leu Arg Thr Ser Leu
 8180 8185 8190
 Glu Val Lys Arg Gly Asp Glu Ile Ala Leu Asp Ala Ser Ile Ser Gly
 8195 8200 8205
 Ser Pro Tyr Pro Thr Ile Thr Trp Ile Lys Asp Glu Asn Val Ile Val
 8210 8215 8220
 Pro Glu Glu Ile Lys Lys Arg Ala Ala Pro Leu Val Arg Arg Arg Lys
 8225 8230 8235 8240
 Gly Glu Val Gln Glu Glu Glu Pro Phe Val Leu Pro Leu Thr Gln Arg
 8245 8250 8255
 Leu Ser Ile Asp Asn Ser Lys Lys Gly Glu Ser Gln Leu Arg Val Arg
 8260 8265 8270
 Asp Ser Leu Arg Pro Asp His Gly Leu Tyr Met Ile Lys Val Glu Asn
 8275 8280 8285
 Asp His Gly Ile Ala Lys Ala Pro Cys Thr Val Ser Val Leu Asp Thr
 8290 8295 8300

Pro Gly Pro Pro Ile Asn Phe Val Phe Glu Asp Ile Arg Lys Thr Ser
 8305 8310 8315 8320
 Val Leu Cys Lys Trp Glu Pro Pro Leu Asp Asp Gly Gly Ser Glu Ile
 8325 8330 8335
 Ile Asn Tyr Thr Leu Glu Lys Lys Asp Lys Thr Lys Pro Asp Ser Glu
 8340 8345 8350
 Trp Ile Val Val Thr Ser Thr Leu Arg His Cys Lys Tyr Ser Val Thr
 8355 8360 8365
 Lys Leu Ile Glu Gly Lys Glu Tyr Leu Phe Arg Val Arg Ala Glu Asn
 8370 8375 8380
 Arg Phe Gly Pro Gly Pro Pro Cys Val Ser Lys Pro Leu Val Ala Lys
 8385 8390 8395 8400
 Asp Pro Phe Gly Pro Pro Asp Ala Pro Asp Lys Pro Ile Val Glu Asp
 8405 8410 8415
 Val Thr Ser Asn Ser Met Leu Val Lys Trp Asn Glu Pro Lys Asp Asn
 8420 8425 8430
 Gly Ser Pro Ile Leu Gly Tyr Trp Leu Glu Lys Arg Glu Val Asn Ser
 8435 8440 8445
 Thr His Trp Ser Arg Val Asn Lys Ser Leu Leu Asn Ala Leu Lys Ala
 8450 8455 8460
 Asn Val Asp Gly Leu Leu Glu Gly Leu Thr Tyr Val Phe Arg Val Cys
 8465 8470 8475 8480
 Ala Glu Asn Ala Ala Gly Pro Gly Lys Phe Ser Pro Pro Ser Asp Pro
 8485 8490 8495
 Lys Thr Ala His Asp Pro Ile Ser Pro Pro Gly Pro Pro Ile Pro Arg
 8500 8505 8510
 Val Thr Asp Thr Ser Ser Thr Thr Ile Glu Leu Glu Trp Glu Pro Pro
 8515 8520 8525
 Ala Phe Asn Gly Gly Gly Glu Ile Val Gly Tyr Phe Val Asp Lys Gln
 8530 8535 8540
 Leu Val Gly Thr Asn Lys Trp Ser Arg Cys Thr Glu Lys Met Ile Lys
 8545 8550 8555 8560
 Val Arg Gln Tyr Thr Val Lys Glu Ile Arg Glu Gly Ala Asp Tyr Lys
 8565 8570 8575
 Leu Arg Val Ser Ala Val Asn Ala Ala Gly Glu Gly Pro Pro Gly Glu
 8580 8585 8590
 Thr Gln Pro Val Thr Val Ala Glu Pro Gln Glu Pro Pro Ala Val Glu
 8595 8600 8605
 Leu Asp Val Ser Val Lys Gly Gly Ile Gln Ile Met Ala Gly Lys Thr
 8610 8615 8620
 Leu Arg Ile Pro Ala Val Val Thr Gly Arg Pro Val Pro Thr Lys Val
 8625 8630 8635 8640
 Trp Thr Lys Glu Glu Gly Glu Leu Asp Lys Asp Arg Val Val Ile Asp
 8645 8650 8655
 Asn Val Gly Thr Lys Ser Glu Leu Ile Ile Lys Asp Ala Leu Arg Lys
 8660 8665 8670
 Asp His Gly Arg Tyr Val Ile Thr Ala Thr Asn Ser Cys Gly Ser Lys
 8675 8680 8685
 Phe Ala Ala Ala Arg Val Glu Val Phe Asp Val Pro Gly Pro Val Leu
 8690 8695 8700
 Asp Leu Lys Pro Val Val Thr Asn Arg Lys Met Cys Leu Leu Asn Trp
 8705 8710 8715 8720
 Ser Asp Pro Glu Asp Asp Gly Gly Ser Glu Ile Thr Gly Phe Ile Ile
 8725 8730 8735
 Glu Arg Lys Asp Ala Lys Met His Thr Trp Arg Gln Pro Ile Glu Thr
 8740 8745 8750
 Glu Arg Ser Lys Cys Asp Ile Thr Gly Leu Leu Glu Gly Gln Glu Tyr
 8755 8760 8765

Lys Phe Arg Val Ile Ala Lys Asn Lys Phe Gly Cys Gly Pro Pro Val
 8770 8775 8780
 Glu Ile Gly Pro Ile Leu Ala Val Asp Pro Leu Gly Pro Pro Thr Ser
 8785 8790 8795 8800
 Pro Glu Arg Leu Thr Tyr Thr Glu Arg Gln Arg Ser Thr Ile Thr Leu
 8805 8810 8815
 Asp Trp Lys Glu Pro Arg Ser Asn Gly Gly Ser Pro Ile Gln Gly Tyr
 8820 8825 8830
 Ile Ile Glu Lys Arg Arg His Asp Lys Pro Asp Phe Glu Arg Val Asn
 8835 8840 8845
 Lys Arg Leu Cys Pro Thr Thr Ser Phe Leu Val Glu Asn Leu Asp Glu
 8850 8855 8860
 His Gln Met Tyr Glu Phe Arg Val Lys Ala Val Asn Glu Ile Gly Glu
 8865 8870 8875 8880
 Ser Glu Pro Ser Leu Pro Leu Asn Val Val Ile Gln Asp Asp Glu Val
 8885 8890 8895
 Pro Pro Thr Ile Lys Leu Arg Leu Ser Val Arg Gly Asp Thr Ile Lys
 8900 8905 8910
 Val Lys Ala Gly Glu Pro Val His Ile Pro Ala Asp Val Thr Gly Leu
 8915 8920 8925
 Pro Met Pro Lys Ile Glu Trp Ser Lys Asn Glu Thr Val Ile Glu Lys
 8930 8935 8940
 Pro Thr Asp Ala Leu Gln Ile Thr Lys Glu Glu Val Ser Arg Ser Glu
 8945 8950 8955 8960
 Ala Lys Thr Glu Leu Ser Ile Pro Lys Ala Val Arg Glu Asp Lys Gly
 8965 8970 8975
 Thr Tyr Thr Val Thr Ala Ser Asn Arg Leu Gly Ser Val Phe Arg Asn
 8980 8985 8990
 Val His Val Glu Val Tyr Asp Arg Pro Ser Pro Pro Arg Asn Leu Ala
 8995 9000 9005
 Val Thr Asp Ile Lys Ala Glu Ser Cys Tyr Leu Thr Trp Asp Ala Pro
 9010 9015 9020
 Leu Asp Asn Gly Gly Ser Glu Ile Thr His Tyr Val Ile Asp Lys Arg
 9025 9030 9035 9040
 Asp Ala Ser Arg Lys Lys Ala Glu Trp Glu Glu Val Thr Asn Thr Ala
 9045 9050 9055
 Val Glu Lys Arg Tyr Gly Ile Trp Lys Leu Ile Pro Asn Gly Gln Tyr
 9060 9065 9070
 Glu Phe Arg Val Arg Ala Val Asn Lys Tyr Gly Ile Ser Asp Glu Cys
 9075 9080 9085
 Lys Ser Asp Lys Val Val Ile Gln Asp Pro Tyr Arg Leu Pro Gly Pro
 9090 9095 9100
 Pro Gly Lys Pro Lys Val Leu Ala Arg Thr Lys Gly Ser Met Leu Val
 9105 9110 9115 9120
 Ser Trp Thr Pro Pro Leu Asp Asn Gly Gly Ser Pro Ile Thr Gly Tyr
 9125 9130 9135
 Trp Leu Glu Lys Arg Glu Glu Gly Ser Pro Tyr Trp Ser Arg Val Ser
 9140 9145 9150
 Arg Ala Pro Ile Thr Lys Val Gly Leu Lys Gly Val Glu Phe Asn Val
 9155 9160 9165
 Pro Arg Leu Leu Glu Gly Val Lys Tyr Gln Phe Arg Ala Met Ala Ile
 9170 9175 9180
 Asn Ala Ala Gly Ile Gly Pro Pro Ser Glu Pro Ser Asp Pro Glu Val
 9185 9190 9195 9200
 Ala Gly Asp Pro Ile Phe Pro Pro Gly Pro Pro Ser Cys Pro Glu Val
 9205 9210 9215
 Lys Asp Lys Thr Lys Ser Ser Ile Ser Leu Gly Trp Lys Pro Pro Ala
 9220 9225 9230

Lys Asp Gly Gly Ser Pro Ile Lys Gly Tyr Ile Val Glu Met Gln Glu
 9235 9240 9245
 Glu Gly Thr Thr Asp Trp Lys Arg Val Asn Glu Pro Asp Lys Leu Ile
 9250 9255 9260
 Thr Thr Cys Glu Cys Val Val Pro Asn Leu Lys Glu Leu Arg Lys Tyr
 9265 9270 9275 9280
 Arg Phe Arg Val Lys Ala Val Asn Glu Ala Gly Glu Ser Glu Pro Ser
 9285 9290 9295
 Asp Thr Thr Gly Glu Ile Pro Ala Thr Asp Ile Gln Glu Glu Pro Glu
 9300 9305 9310
 Val Phe Ile Asp Ile Gly Ala Gln Asp Cys Leu Val Cys Lys Ala Gly
 9315 9320 9325
 Ser Gln Ile Arg Ile Pro Ala Val Ile Lys Gly Arg Pro Thr Pro Lys
 9330 9335 9340
 Ser Ser Trp Glu Phe Asp Gly Lys Ala Lys Lys Ala Met Lys Asp Gly
 9345 9350 9355 9360
 Val His Asp Ile Pro Glu Asp Ala Gln Leu Glu Thr Ala Glu Asn Ser
 9365 9370 9375
 Ser Val Ile Ile Ile Pro Glu Cys Lys Arg Ser His Thr Gly Lys Tyr
 9380 9385 9390
 Ser Ile Thr Ala Lys Asn Lys Ala Gly Gln Lys Thr Ala Asn Cys Arg
 9395 9400 9405
 Val Lys Val Met Asp Val Pro Gly Pro Pro Lys Asp Leu Lys Val Ser
 9410 9415 9420
 Asp Ile Thr Arg Gly Ser Cys Arg Leu Ser Trp Lys Met Pro Asp Asp
 9425 9430 9435 9440
 Asp Gly Gly Asp Arg Ile Lys Gly Tyr Val Ile Glu Lys Arg Thr Ile
 9445 9450 9455
 Asp Gly Lys Ala Trp Thr Lys Val Asn Pro Asp Cys Gly Ser Thr Thr
 9460 9465 9470
 Phe Val Val Pro Asp Leu Leu Ser Glu Gln Gln Tyr Phe Phe Arg Val
 9475 9480 9485
 Arg Ala Glu Asn Arg Phe Gly Ile Gly Pro Pro Val Glu Thr Ile Gln
 9490 9495 9500
 Arg Thr Thr Ala Arg Asp Pro Ile Tyr Pro Pro Asp Pro Pro Ile Lys
 9505 9510 9515 9520
 Leu Lys Ile Gly Leu Ile Thr Lys Asn Thr Val His Leu Ser Trp Lys
 9525 9530 9535
 Pro Pro Lys Asn Asp Gly Gly Ser Pro Val Thr His Tyr Ile Val Glu
 9540 9545 9550
 Cys Leu Ala Trp Asp Pro Thr Gly Thr Lys Lys Glu Ala Trp Arg Gln
 9555 9560 9565
 Cys Asn Lys Arg Asp Val Glu Leu Gln Phe Thr Val Glu Asp Leu
 9570 9575 9580
 Val Glu Gly Gly Glu Tyr Glu Phe Arg Val Lys Ala Val Asn Ala Ala
 9585 9590 9595 9600
 Gly Val Ser Lys Pro Ser Ala Thr Val Gly Pro Cys Asp Cys Gln Arg
 9605 9610 9615
 Pro Asp Met Pro Pro Ser Ile Asp Leu Lys Glu Phe Met Glu Val Glu
 9620 9625 9630
 Glu Gly Thr Asn Val Asn Ile Val Ala Lys Ile Lys Gly Val Pro Phe
 9635 9640 9645
 Pro Thr Leu Thr Trp Phe Lys Ala Pro Pro Lys Lys Pro Asp Asn Lys
 9650 9655 9660
 Glu Pro Val Leu Tyr Asp Thr His Val Asn Lys Leu Val Val Asp Asp
 9665 9670 9675 9680
 Thr Cys Thr Leu Val Ile Pro Gln Ser Arg Arg Ser Asp Thr Gly Leu
 9685 9690 9695

Tyr Thr Ile Thr Ala Val Asn Asn Leu Gly Thr Ala Ser Lys Glu Met
 9700 9705 9710
 Arg Leu Asn Val Leu Gly Arg Pro Gly Pro Pro Val Gly Pro Ile Lys
 9715 9720 9725
 Phe Glu Ser Val Ser Ala Asp Gln Met Thr Leu Ser Trp Phe Pro Pro
 9730 9735 9740
 Lys Asp Asp Gly Gly Ser Lys Ile Thr Asn Tyr Val Ile Glu Lys Arg
 9745 9750 9755 9760
 Glu Ala Asn Arg Lys Thr Trp Val His Val Ser Ser Glu Pro Lys Glu
 9765 9770 9775
 Cys Thr Tyr Thr Ile Pro Lys Leu Leu Glu Gly His Glu Tyr Val Phe
 9780 9785 9790
 Arg Ile Met Ala Gln Asn Lys Tyr Gly Ile Gly Glu Pro Leu Asp Ser
 9795 9800 9805
 Glu Pro Glu Thr Ala Arg Asn Leu Phe Ser Val Pro Gly Ala Pro Asp
 9810 9815 9820
 Lys Pro Thr Val Ser Ser Val Thr Arg Asn Ser Met Thr Val Asn Trp
 9825 9830 9835 9840
 Glu Glu Pro Glu Tyr Asp Gly Gly Ser Pro Val Thr Gly Tyr Trp Leu
 9845 9850 9855
 Glu Met Lys Asp Thr Thr Ser Lys Arg Trp Lys Arg Val Asn Arg Asp
 9860 9865 9870
 Pro Ile Lys Ala Met Thr Leu Gly Val Ser Tyr Lys Val Thr Gly Leu
 9875 9880 9885
 Ile Glu Gly Ser Asp Tyr Gln Phe Arg Val Tyr Ala Ile Asn Ala Ala
 9890 9895 9900
 Gly Val Gly Pro Ala Ser Leu Pro Ser Asp Pro Ala Thr Ala Arg Asp
 9905 9910 9915 9920
 Pro Ile Ala Pro Pro Gly Pro Pro Phe Pro Lys Val Thr Asp Trp Thr
 9925 9930 9935
 Lys Ser Ser Ala Asp Leu Glu Trp Ser Pro Pro Leu Lys Asp Gly Gly
 9940 9945 9950
 Ser Lys Val Thr Gly Tyr Ile Val Glu Tyr Lys Glu Glu Gly Lys Glu
 9955 9960 9965
 Glu Trp Glu Lys Gly Lys Asp Lys Glu Val Arg Gly Thr Lys Leu Val
 9970 9975 9980
 Val Thr Gly Leu Lys Glu Gly Ala Phe Tyr Lys Phe Arg Val Ser Ala
 9985 9990 9995 10000
 Val Asn Ile Ala Gly Ile Gly Glu Pro Gly Glu Val Thr Asp Val Ile
 10005 10010 10015
 Glu Met Lys Asp Arg Leu Val Ser Pro Asp Leu Gln Leu Asp Ala Ser
 10020 10025 10030
 Val Arg Asp Arg Ile Val Val His Ala Gly Gly Val Ile Arg Ile Ile
 10035 10040 10045
 Ala Tyr Val Ser Gly Lys Pro Pro Thr Val Thr Trp Asn Met Asn
 10050 10055 10060 1
 Glu Arg Thr Leu Pro Gln Glu Ala Thr Ile Glu Thr Thr Ala Ile Ser
 0065 10070 10075 10080
 Ser Ser Met Val Ile Lys Asn Cys Gln Arg Ser His Gln Gly Val Tyr
 10085 10090 10095
 Ser Leu Leu Ala Lys Asn Glu Ala Gly Glu Arg Lys Lys Thr Ile Ile
 10100 10105 10110
 Val Asp Val Leu Asp Val Pro Gly Pro Val Gly Thr Pro Phe Leu Ala
 10115 10120 10125
 His Asn Leu Thr Asn Glu Ser Cys Lys Leu Thr Trp Phe Ser Pro Glu
 10130 10135 10140 1
 Asp Asp Gly Gly Ser Pro Ile Thr Asn Tyr Val Ile Glu Lys Arg Glu
 0145 10150 10155 10160

Ser Asp Arg Arg Ala Trp Thr Pro Val Thr Tyr Thr Val Thr Arg Gln
 10165 10170 10175
 Asn Ala Thr Val Gln Gly Leu Ile Gln Gly Lys Ala Tyr Phe Phe Arg
 10180 10185 10190
 Ile Ala Ala Glu Asn Ser Ile Gly Met Gly Pro Phe Val Glu Thr Ser
 10195 10200 10205
 Glu Ala Leu Val Ile Arg Glu Pro Ile Thr Val Pro Glu Arg Pro Glu
 10210 10215 10220 1
 Asp Leu Glu Val Lys Glu Val Thr Lys Asn Thr Val Thr Leu Thr Trp
 0225 10230 10235 10240
 Asn Pro Pro Lys Tyr Asp Gly Gly Ser Glu Ile Ile Asn Tyr Val Leu
 10245 10250 10255
 Glu Ser Arg Leu Ile Gly Thr Glu Lys Phe His Lys Val Thr Asn Asp
 10260 10265 10270
 Asn Leu Leu Ser Arg Lys Tyr Thr Val Lys Gly Leu Lys Glu Gly Asp
 10275 10280 10285
 Thr Tyr Glu Tyr Arg Val Ser Ala Val Asn Ile Val Gly Gln Gly Lys
 10290 10295 10300 1
 Pro Ser Phe Cys Thr Lys Pro Ile Thr Cys Lys Asp Glu Leu Ala Pro
 0305 10310 10315 10320
 Pro Thr Leu His Leu Asp Phe Arg Asp Lys Leu Thr Ile Arg Val Gly
 10325 10330 10335
 Glu Ala Phe Ala Leu Thr Gly Arg Tyr Ser Gly Lys Pro Lys Pro Lys
 10340 10345 10350
 Val Ser Trp Phe Lys Asp Glu Ala Asp Val Leu Glu Asp Asp Arg Thr
 10355 10360 10365
 His Ile Lys Thr Thr Pro Ala Thr Leu Ala Leu Glu Lys Ile Lys Ala
 10370 10375 10380 1
 Lys Arg Ser Asp Ser Gly Lys Tyr Cys Val Val Val Glu Asn Ser Thr
 0385 10390 10395 10400
 Gly Ser Arg Lys Gly Phe Cys Gln Val Asn Val Val Asp His Pro Gly
 10405 10410 10415
 Pro Pro Val Gly Pro Val Ser Phe Asp Glu Val Thr Lys Asp Tyr Met
 10420 10425 10430
 Val Ile Ser Trp Lys Pro Pro Leu Asp Asp Gly Gly Ser Lys Ile Thr
 10435 10440 10445
 Asn Tyr Ile Ile Glu Lys Lys Glu Val Gly Lys Asp Val Trp Met Pro
 10450 10455 10460 1
 Val Thr Ser Ala Ser Ala Lys Thr Thr Cys Lys Val Ser Lys Leu Leu
 0465 10470 10475 10480
 Glu Gly Lys Asp Tyr Ile Phe Arg Ile His Ala Glu Asn Leu Tyr Gly
 10485 10490 10495
 Ile Ser Asp Pro Leu Val Ser Asp Ser Met Lys Ala Lys Asp Arg Phe
 10500 10505 10510
 Arg Val Pro Asp Ala Pro Asp Gln Pro Ile Val Thr Glu Val Thr Lys
 10515 10520 10525
 Asp Ser Ala Leu Val Thr Trp Asn Lys Pro His Asp Gly Gly Lys Pro
 10530 10535 10540 1
 Ile Thr Asn Tyr Ile Leu Glu Lys Arg Glu Thr Met Ser Lys Arg Trp
 0545 10550 10555 10560
 Ala Arg Val Thr Lys Asp Pro Ile His Pro Tyr Thr Lys Phe Arg Val
 10565 10570 10575
 Pro Asp Leu Leu Glu Gly Cys Gln Tyr Glu Phe Arg Val Ser Ala Glu
 10580 10585 10590
 Asn Glu Ile Gly Ile Gly Asp Pro Ser Pro Pro Ser Lys Pro Val Phe
 10595 10600 10605
 Ala Lys Asp Pro Ile Ala Lys Pro Ser Pro Pro Val Asn Pro Glu Ala
 10610 10615 10620 1

Ile Asp Thr Thr Cys Asn Ser Val Asp Leu Thr Trp Gln Pro Pro Arg
 0625 10630 10635 10640
 His Asp Gly Gly Ser Lys Ile Leu Gly Tyr Ile Val Glu Tyr Gln Lys
 10645 10650 10655
 Val Gly Asp Glu Glu Trp Arg Arg Ala Asn His Thr Pro Glu Ser Cys
 10660 10665 10670
 Pro Glu Thr Lys Tyr Lys Val Thr Gly Leu Arg Asp Gly Gln Thr Tyr
 10675 10680 10685
 Lys Phe Arg Val Leu Ala Val Asn Ala Ala Gly Glu Ser Asp Pro Ala
 10690 10695 10700 1
 His Val Pro Glu Pro Val Leu Val Lys Asp Arg Leu Glu Pro Pro Glu
 0705 10710 10715 10720
 Leu Ile Leu Asp Ala Asn Met Ala Arg Glu Gln His Ile Lys Val Gly
 10725 10730 10735
 Asp Thr Leu Arg Leu Ser Ala Ile Ile Lys Gly Val Pro Phe Pro Lys
 10740 10745 10750
 Val Thr Trp Lys Lys Glu Asp Arg Asp Ala Pro Thr Lys Ala Arg Ile
 10755 10760 10765
 Asp Val Thr Pro Val Gly Ser Lys Leu Glu Ile Arg Asn Ala Ala His
 10770 10775 10780 1
 Glu Asp Gly Gly Ile Tyr Ser Leu Thr Val Glu Asn Pro Ala Gly Ser
 0785 10790 10795 10800
 Lys Thr Val Ser Val Lys Val Leu Val Leu Asp Lys Pro Gly Pro Pro
 10805 10810 10815
 Arg Asp Leu Glu Val Ser Glu Ile Arg Lys Asp Ser Cys Tyr Leu Thr
 10820 10825 10830
 Trp Lys Glu Pro Leu Asp Asp Gly Gly Ser Val Ile Thr Asn Tyr Val
 10835 10840 10845
 Val Glu Arg Arg Asp Val Ala Ser Ala Gln Trp Ser Pro Leu Ser Ala
 10850 10855 10860 1
 Thr Ser Lys Lys Lys Ser His Phe Ala Lys His Leu Asn Glu Gly Asn
 0865 10870 10875 10880
 Gln Tyr Leu Phe Arg Val Ala Ala Glu Asn Gln Tyr Gly Arg Gly Pro
 10885 10890 10895
 Phe Val Glu Thr Pro Lys Pro Ile Lys Ala Leu Asp Pro Leu His Pro
 10900 10905 10910
 Pro Gly Pro Pro Lys Asp Leu His His Val Asp Val Asp Lys Thr Glu
 10915 10920 10925
 Val Ser Leu Val Trp Asn Lys Pro Asp Arg Asp Gly Gly Ser Pro Ile
 10930 10935 10940 1
 Thr Gly Tyr Leu Val Glu Tyr Gln Glu Glu Gly Thr Gln Asp Trp Ile
 0945 10950 10955 10960
 Lys Phe Lys Thr Val Thr Asn Leu Glu Cys Val Val Thr Gly Leu Gln
 10965 10970 10975
 Gln Gly Lys Thr Tyr Arg Phe Arg Val Lys Ala Glu Asn Ile Val Gly
 10980 10985 10990
 Leu Gly Leu Pro Asp Thr Thr Ile Pro Ile Glu Cys Gln Glu Lys Leu
 10995 11000 11005
 Val Pro Pro Ser Val Glu Leu Asp Val Lys Leu Ile Glu Gly Leu Val
 11010 11015 11020 1
 Val Lys Ala Gly Thr Thr Val Arg Phe Pro Ala Ile Ile Arg Gly Val
 1025 11030 11035 11040
 Pro Val Pro Thr Ala Lys Trp Thr Thr Asp Gly Ser Glu Ile Lys Thr
 11045 11050 11055
 Asp Glu His Tyr Thr Val Glu Thr Asp Asn Phe Ser Ser Val Leu Thr
 11060 11065 11070
 Ile Lys Asn Cys Leu Arg Arg Asp Thr Gly Glu Tyr Gln Ile Thr Val
 11075 11080 11085

Ile Val Ala Ser Asp Val Thr Lys Arg Leu Ile Lys Ala Asn Leu Leu
 11555 11560 11565
 Ala Asn Asn Glu Tyr Tyr Phe Arg Val Cys Ala Glu Asn Lys Val Gly
 11570 11575 11580 1
 Val Gly Pro Thr Ile Glu Thr Lys Thr Pro Ile Leu Ala Ile Asn Pro
 1585 11590 11595 11600
 Ile Asp Arg Pro Gly Glu Pro Glu Asn Leu His Ile Ala Asp Lys Gly
 11605 11610 11615
 Lys Thr Phe Val Tyr Leu Lys Trp Arg Arg Pro Asp Tyr Asp Gly Gly
 11620 11625 11630
 Ser Pro Asn Leu Ser Tyr His Val Glu Arg Arg Leu Lys Gly Ser Asp
 11635 11640 11645
 Asp Trp Glu Arg Val His Lys Gly Ser Ile Lys Glu Thr His Tyr Met
 11650 11655 11660 1
 Val Asp Arg Cys Val Glu Asn Gln Ile Tyr Glu Phe Arg Val Gln Thr
 1665 11670 11675 11680
 Lys Asn Glu Gly Gly Glu Ser Asp Trp Val Lys Thr Glu Glu Val Val
 11685 11690 11695
 Val Lys Glu Asp Leu Gln Lys Pro Val Leu Asp Leu Lys Leu Ser Gly
 11700 11705 11710
 Val Leu Thr Val Lys Ala Gly Asp Thr Ile Arg Leu Glu Ala Gly Val
 11715 11720 11725
 Arg Gly Lys Pro Phe Pro Glu Val Ala Trp Thr Lys Asp Lys Asp Ala
 11730 11735 11740 1
 Thr Asp Leu Thr Arg Ser Pro Arg Val Lys Ile Asp Thr Arg Ala Asp
 1745 11750 11755 11760
 Ser Ser Lys Phe Ser Leu Thr Lys Ala Lys Arg Ser Asp Gly Gly Lys
 11765 11770 11775
 Tyr Val Val Thr Ala Thr Asn Thr Ala Gly Ser Phe Val Ala Tyr Ala
 11780 11785 11790
 Thr Val Asn Val Leu Asp Lys Pro Gly Pro Val Arg Asn Leu Lys Ile
 11795 11800 11805
 Val Asp Val Ser Ser Asp Arg Cys Thr Val Cys Trp Asp Pro Pro Glu
 11810 11815 11820 1
 Asp Asp Gly Gly Cys Glu Ile Gln Asn Tyr Ile Leu Glu Lys Cys Glu
 1825 11830 11835 11840
 Thr Lys Arg Met Val Trp Ser Thr Tyr Ser Ala Thr Val Leu Thr Pro
 11845 11850 11855
 Gly Thr Thr Val Thr Arg Leu Ile Glu Gly Asn Glu Tyr Ile Phe Arg
 11860 11865 11870
 Val Arg Ala Glu Asn Lys Ile Gly Thr Gly Pro Pro Thr Glu Ser Lys
 11875 11880 11885
 Pro Val Ile Ala Lys Thr Lys Tyr Asp Lys Pro Gly Arg Pro Asp Pro
 11890 11895 11900 1
 Pro Glu Val Thr Lys Val Ser Lys Glu Glu Met Thr Val Val Trp Asn
 1905 11910 11915 11920
 Pro Pro Glu Tyr Asp Gly Gly Lys Ser Ile Thr Gly Tyr Phe Leu Glu
 11925 11930 11935
 Lys Lys Glu Lys His Ser Thr Arg Trp Val Pro Val Asn Lys Ser Ala
 11940 11945 11950
 Ile Pro Glu Arg Arg Met Lys Val Gln Asn Leu Leu Pro Asp His Glu
 11955 11960 11965
 Tyr Gln Phe Arg Val Lys Ala Glu Asn Glu Ile Gly Ile Gly Glu Pro
 11970 11975 11980 1
 Ser Leu Pro Ser Arg Pro Val Val Ala Lys Asp Pro Ile Glu Pro Pro
 1985 11990 11995 12000
 Gly Pro Pro Thr Asn Phe Arg Val Val Asp Thr Thr Lys His Ser Ile
 12005 12010 12015

Thr Leu Gly Trp Gly Lys Pro Val Tyr Asp Gly Gly Ala Pro Ile Ile
 12020 12025 12030
 Gly Tyr Val Val Glu Met Arg Pro Lys Ile Ala Asp Ala Ser Pro Asp
 12035 12040 12045
 Glu Gly Trp Lys Arg Cys Asn Ala Ala Ala Gln Leu Val Arg Lys Glu
 12050 12055 12060 1
 Phe Thr Val Thr Ser Leu Asp Glu Asn Gln Glu Tyr Glu Phe Arg Val
 2065 12070 12075 12080
 Cys Ala Gln Asn Gln Val Gly Ile Gly Arg Pro Ala Glu Leu Lys Glu
 12085 12090 12095
 Ala Ile Lys Pro Lys Glu Ile Leu Glu Pro Pro Glu Ile Asp Leu Asp
 12100 12105 12110
 Ala Ser Met Arg Lys Leu Val Ile Val Arg Ala Gly Cys Pro Ile Arg
 12115 12120 12125
 Leu Phe Ala Ile Val Arg Gly Arg Pro Ala Pro Lys Val Thr Trp Arg
 12130 12135 12140 1
 Lys Val Gly Ile Asp Asn Val Val Arg Lys Gly Gln Val Asp Leu Val
 2145 12150 12155 12160
 Asp Thr Met Ala Phe Leu Val Ile Pro Asn Ser Thr Arg Asp Asp Ser
 12165 12170 12175
 Gly Lys Tyr Ser Leu Thr Leu Val Asn Pro Ala Gly Glu Lys Ala Val
 12180 12185 12190
 Phe Val Asn Val Arg Val Leu Asp Thr Pro Gly Pro Val Ser Asp Leu
 12195 12200 12205
 Lys Val Ser Asp Val Thr Lys Thr Ser Cys His Val Ser Trp Ala Pro
 12210 12215 12220 1
 Pro Glu Asn Asp Gly Gly Ser Gln Val Thr His Tyr Ile Val Glu Lys
 2225 12230 12235 12240
 Arg Glu Ala Asp Arg Lys Thr Trp Ser Thr Val Thr Pro Glu Val Lys
 12245 12250 12255
 Lys Thr Ser Phe His Val Thr Asn Leu Val Pro Gly Asn Glu Tyr Tyr
 12260 12265 12270
 Phe Arg Val Thr Ala Val Asn Glu Tyr Gly Pro Gly Val Pro Thr Asp
 12275 12280 12285
 Val Pro Lys Pro Val Leu Ala Ser Asp Pro Leu Ser Glu Pro Asp Pro
 12290 12295 12300 1
 Pro Arg Lys Leu Glu Ala Thr Glu Met Thr Lys Asn Ser Ala Thr Leu
 2305 12310 12315 12320
 Ala Trp Leu Pro Pro Leu Arg Asp Gly Gly Ala Lys Ile Asp Gly Tyr
 12325 12330 12335
 Ile Ile Ser Tyr Arg Glu Glu Glu Gln Pro Ala Asp Arg Trp Thr Glu
 12340 12345 12350
 Tyr Ser Val Val Lys Asp Leu Ser Leu Val Val Thr Gly Leu Lys Glu
 12355 12360 12365
 Gly Lys Lys Tyr Lys Phe Arg Val Ala Ala Arg Asn Ala Val Gly Val
 12370 12375 12380 1
 Ser Leu Pro Arg Glu Ala Glu Gly Val Tyr Glu Ala Lys Glu Gln Leu
 2385 12390 12395 12400
 Leu Pro Pro Lys Ile Leu Met Pro Glu Gln Ile Thr Ile Lys Ala Gly
 12405 12410 12415
 Lys Lys Leu Arg Ile Glu Ala His Val Tyr Gly Lys Pro His Pro Thr
 12420 12425 12430
 Cys Lys Trp Lys Lys Gly Glu Asp Glu Val Val Thr Ser Ser His Leu
 12435 12440 12445
 Ala Val His Lys Ala Asp Ser Ser Ser Ile Leu Ile Ile Lys Asp Val
 12450 12455 12460 1
 Thr Arg Lys Asp Ser Gly Tyr Tyr Ser Leu Thr Ala Glu Asn Ser Ser
 2465 12470 12475 12480

Gly Thr Asp Thr Gln Lys Ile Lys Val Val Val Met Asp Ala Pro Gly
 12485 12490 12495
 Pro Pro Gln Pro Pro Phe Asp Ile Ser Asp Ile Asp Ala Asp Ala Cys
 12500 12505 12510
 Ser Leu Ser Trp His Ile Pro Leu Glu Asp Gly Gly Ser Asn Ile Thr
 12515 12520 12525
 Asn Tyr Ile Val Glu Lys Cys Asp Val Ser Arg Gly Asp Trp Val Thr
 12530 12535 12540 1
 Ala Leu Ala Ser Val Thr Lys Thr Ser Cys Arg Val Gly Lys Leu Ile
 2545 12550 12555 12560
 Pro Gly Gln Glu Tyr Ile Phe Arg Val Arg Ala Glu Asn Arg Phe Gly
 12565 12570 12575
 Ile Ser Glu Pro Leu Thr Ser Pro Lys Met Val Ala Gln Phe Pro Phe
 12580 12585 12590
 Gly Val Pro Ser Glu Pro Lys Asn Ala Arg Val Thr Lys Val Asn Lys
 12595 12600 12605
 Asp Cys Ile Phe Val Ala Trp Asp Arg Pro Asp Ser Asp Gly Gly Ser
 12610 12615 12620 1
 Pro Ile Ile Gly Tyr Leu Ile Glu Arg Lys Glu Arg Asn Ser Leu Leu
 2625 12630 12635 12640
 Trp Val Lys Ala Asn Asp Thr Leu Val Arg Ser Thr Glu Tyr Pro Cys
 12645 12650 12655
 Ala Gly Leu Val Glu Gly Leu Glu Tyr Ser Phe Arg Ile Tyr Ala Leu
 12660 12665 12670
 Asn Lys Ala Gly Ser Ser Pro Pro Ser Lys Pro Thr Glu Tyr Val Thr
 12675 12680 12685
 Ala Arg Met Pro Val Asp Pro Pro Gly Lys Pro Glu Val Ile Asp Val
 12690 12695 12700 1
 Thr Lys Ser Thr Val Ser Leu Ile Trp Ala Arg Pro Lys His Asp Gly
 2705 12710 12715 12720
 Gly Ser Lys Ile Ile Gly Tyr Phe Val Glu Ala Cys Lys Leu Pro Gly
 12725 12730 12735
 Asp Lys Trp Val Arg Cys Asn Thr Ala Pro His Gln Ile Pro Gln Glu
 12740 12745 12750
 Glu Tyr Thr Ala Thr Gly Leu Glu Lys Ala Gln Tyr Gln Phe Arg
 12755 12760 12765
 Ala Ile Ala Arg Thr Ala Val Asn Ile Ser Pro Pro Ser Glu Pro Ser
 12770 12775 12780 1
 Asp Pro Val Thr Ile Leu Ala Glu Asn Val Pro Pro Arg Ile Asp Leu
 2785 12790 12795 12800
 Ser Val Ala Met Lys Ser Leu Leu Thr Val Lys Ala Gly Thr Asn Val
 12805 12810 12815
 Cys Leu Asp Ala Thr Val Phe Gly Lys Pro Met Pro Thr Val Ser Trp
 12820 12825 12830
 Lys Lys Asp Gly Thr Leu Leu Lys Pro Ala Glu Gly Ile Lys Met Ala
 12835 12840 12845
 Met Gln Arg Asn Leu Cys Thr Leu Glu Leu Phe Ser Val Asn Arg Lys
 12850 12855 12860 1
 Asp Ser Gly Asp Tyr Thr Ile Thr Ala Glu Asn Ser Ser Gly Ser Lys
 2865 12870 12875 12880
 Ser Ala Thr Ile Lys Leu Lys Val Leu Asp Lys Pro Gly Pro Pro Ala
 12885 12890 12895
 Ser Val Lys Ile Asn Lys Met Tyr Ser Asp Arg Ala Met Leu Ser Trp
 12900 12905 12910
 Glu Pro Pro Leu Glu Asp Gly Gly Ser Glu Ile Thr Asn Tyr Ile Val
 12915 12920 12925
 Asp Lys Arg Glu Thr Ser Arg Pro Asn Trp Ala Gln Val Ser Ala Thr
 12930 12935 12940 1

Val Pro Ile Thr Ser Cys Ser Val Glu Lys Leu Ile Glu Gly His Glu
 2945 12950 12955 12960
 Tyr Gln Phe Arg Ile Cys Ala Glu Asn Lys Tyr Gly Val Gly Asp Pro
 12965 12970 12975
 Val Phe Thr Glu Pro Ala Ile Ala Lys Asn Pro Tyr Asp Pro Pro Gly
 12980 12985 12990
 Arg Cys Asp Pro Pro Val Ile Ser Asn Ile Thr Lys Asp His Met Thr
 12995 13000 13005
 Val Ser Trp Lys Pro Pro Ala Asp Asp Gly Gly Ser Pro Ile Thr Gly
 13010 13015 13020 1
 Tyr Leu Leu Glu Lys Arg Glu Thr Gln Ala Val Asn Trp Thr Lys Val
 3025 13030 13035 13040
 Asn Arg Lys Pro Ile Ile Glu Arg Thr Leu Lys Ala Thr Gly Leu Gln
 13045 13050 13055
 Glu Gly Thr Glu Tyr Glu Phe Arg Val Thr Ala Ile Asn Lys Ala Gly
 13060 13065 13070
 Pro Gly Lys Pro Ser Asp Ala Ser Lys Ala Ala Tyr Ala Arg Asp Pro
 13075 13080 13085
 Gln Tyr Pro Pro Ala Pro Pro Ala Phe Pro Lys Val Tyr Asp Thr Thr
 13090 13095 13100 1
 Arg Ser Ser Val Ser Leu Ser Trp Gly Lys Pro Ala Tyr Asp Gly Gly
 3105 13110 13115 13120
 Ser Pro Ile Ile Gly Tyr Leu Val Glu Val Lys Arg Ala Asp Ser Asp
 13125 13130 13135
 Asn Trp Val Arg Cys Asn Leu Pro Gln Asn Leu Gln Lys Thr Arg Phe
 13140 13145 13150
 Glu Val Thr Gly Leu Met Glu Asp Thr Gln Tyr Gln Phe Arg Val Tyr
 13155 13160 13165
 Ala Val Asn Lys Ile Gly Tyr Ser Asp Pro Ser Asp Val Pro Asp Lys
 13170 13175 13180 1
 His Tyr Pro Lys Asp Ile Leu Ile Pro Pro Glu Gly Glu His Asp Ala
 3185 13190 13195 13200
 Asp Leu Arg Lys Thr Leu Ile Leu Arg Ala Gly Val Thr Met Arg Leu
 13205 13210 13215
 Tyr Val Pro Val Lys Gly Arg Pro Pro Lys Ile Thr Trp Ser Lys
 13220 13225 13230
 Pro Asn Val Asn Leu Arg Asp Arg Ile Gly Leu Asp Ile Lys Ser Thr
 13235 13240 13245
 Asp Phe Asp Thr Phe Leu Arg Cys Glu Asn Val Asn Lys Tyr Asp Ala
 13250 13255 13260 1
 Gly Lys Tyr Ile Leu Thr Leu Glu Asn Ser Cys Gly Lys Lys Glu Tyr
 3265 13270 13275 13280
 Thr Ile Val Val Lys Val Leu Asp Thr Pro Gly Pro Pro Ile Asn Val
 13285 13290 13295
 Thr Val Lys Glu Ile Ser Lys Asp Ser Ala Tyr Val Thr Trp Glu Pro
 13300 13305 13310
 Pro Ile Ile Asp Gly Gly Ser Pro Ile Ile Asn Tyr Val Val Gln Lys
 13315 13320 13325
 Arg Asp Ala Glu Arg Lys Ser Trp Ser Thr Val Thr Thr Glu Cys Ser
 13330 13335 13340 1
 Lys Thr Ser Phe Arg Val Pro Asn Leu Glu Glu Gly Lys Ser Tyr Phe
 3345 13350 13355 13360
 Phe Arg Val Phe Ala Glu Asn Glu Tyr Gly Ile Gly Asp Pro Gly Glu
 13365 13370 13375
 Thr Arg Asp Ala Val Lys Ala Ser Gln Thr Pro Gly Pro Val Val Asp
 13380 13385 13390
 Leu Lys Val Arg Ser Val Ser Lys Ser Ser Cys Ser Ile Gly Trp Lys
 13395 13400 13405

Lys Pro His Ser Asp Gly Gly Ser Arg Ile Ile Gly Tyr Val Val Asp
 13410 13415 13420 1
 Phe Leu Thr Glu Glu Asn Lys Trp Gln Arg Val Met Lys Ser Leu Ser
 3425 13430 13435 13440
 Leu Gln Tyr Ser Ala Lys Asp Leu Thr Glu Gly Lys Glu Tyr Thr Phe
 13445 13450 13455
 Arg Val Ser Ala Glu Asn Glu Asn Gly Glu Gly Thr Pro Ser Glu Ile
 13460 13465 13470
 Thr Val Val Ala Arg Asp Asp Val Val Ala Pro Asp Leu Asp Leu Lys
 13475 13480 13485
 Gly Leu Pro Asp Leu Cys Tyr Leu Ala Lys Glu Asn Ser Asn Phe Arg
 13490 13495 13500 1
 Leu Lys Ile Pro Ile Lys Gly Lys Pro Ala Pro Ser Val Ser Trp Lys
 3505 13510 13515 13520
 Lys Gly Glu Asp Pro Leu Ala Thr Asp Thr Arg Val Ser Val Glu Ser
 13525 13530 13535
 Ser Ala Val Asn Thr Thr Leu Ile Val Tyr Asp Cys Gln Lys Ser Asp
 13540 13545 13550
 Ala Gly Lys Tyr Thr Ile Thr Leu Lys Asn Val Ala Gly Thr Lys Glu
 13555 13560 13565
 Gly Thr Ile Ser Ile Lys Val Val Gly Lys Pro Gly Ile Pro Thr Gly
 13570 13575 13580 1
 Pro Ile Lys Phe Asp Glu Val Thr Ala Glu Ala Met Thr Leu Lys Trp
 3585 13590 13595 13600
 Ala Pro Pro Lys Asp Asp Gly Gly Ser Glu Ile Thr Asn Tyr Ile Leu
 13605 13610 13615
 Glu Lys Arg Asp Ser Val Asn Asn Lys Trp Val Thr Cys Ala Ser Ala
 13620 13625 13630
 Val Gln Lys Thr Thr Phe Arg Val Thr Arg Leu His Glu Gly Met Glu
 13635 13640 13645
 Tyr Thr Phe Arg Val Ser Ala Glu Asn Lys Tyr Gly Val Gly Glu Gly
 13650 13655 13660 1
 Leu Lys Ser Glu Pro Ile Val Ala Arg His Pro Phe Asp Val Pro Asp
 3665 13670 13675 13680
 Ala Pro Pro Pro Pro Asn Ile Val Asp Val Arg His Asp Ser Val Ser
 13685 13690 13695
 Leu Thr Trp Thr Asp Pro Lys Lys Thr Gly Gly Ser Pro Ile Thr Gly
 13700 13705 13710
 Tyr His Leu Glu Phe Lys Glu Arg Asn Ser Leu Leu Trp Lys Arg Ala
 13715 13720 13725
 Asn Lys Thr Pro Ile Arg Met Arg Asp Phe Lys Val Thr Gly Leu Thr
 13730 13735 13740 1
 Glu Gly Leu Glu Tyr Glu Phe Arg Val Met Ala Ile Asn Leu Ala Gly
 3745 13750 13755 13760
 Val Gly Lys Pro Ser Leu Pro Ser Glu Pro Val Val Ala Leu Asp Pro
 13765 13770 13775
 Ile Asp Pro Pro Gly Lys Pro Glu Val Ile Asn Ile Thr Arg Asn Ser
 13780 13785 13790
 Val Thr Leu Ile Trp Thr Glu Pro Lys Tyr Asp Gly Gly His Lys Leu
 13795 13800 13805
 Thr Gly Tyr Ile Val Glu Lys Arg Asp Leu Pro Ser Lys Ser Trp Met
 13810 13815 13820 1
 Lys Ala Asn His Val Asn Val Pro Glu Cys Ala Phe Thr Val Thr Asp
 3825 13830 13835 13840
 Leu Val Glu Gly Gly Lys Tyr Glu Phe Arg Ile Arg Ala Lys Asn Thr
 13845 13850 13855
 Ala Gly Ala Ile Ser Ala Pro Ser Glu Ser Thr Glu Thr Ile Ile Cys
 13860 13865 13870

Lys Asp Glu Tyr Glu Ala Pro Thr Ile Val Leu Asp Pro Thr Ile Lys
 13875 13880 13885
 Asp Gly Leu Thr Ile Lys Ala Gly Asp Thr Ile Val Leu Asn Ala Ile
 13890 13895 13900 1
 Ser Ile Leu Gly Lys Pro Leu Pro Lys Ser Ser Trp Ser Lys Ala Gly
 3905 13910 13915 13920
 Lys Asp Ile Arg Pro Ser Asp Ile Thr Gln Ile Thr Ser Thr Pro Thr
 13925 13930 13935
 Ser Ser Met Leu Thr Ile Lys Tyr Ala Thr Arg Lys Asp Ala Gly Glu
 13940 13945 13950
 Tyr Thr Ile Thr Ala Thr Asn Pro Phe Gly Thr Lys Val Glu His Val
 13955 13960 13965
 Lys Val Thr Val Leu Asp Val Pro Gly Pro Pro Gly Pro Val Glu Ile
 13970 13975 13980 1
 Ser Asn Val Ser Ala Glu Lys Ala Thr Leu Thr Trp Thr Pro Pro Leu
 3985 13990 13995 14000
 Glu Asp Gly Gly Ser Pro Ile Lys Ser Tyr Ile Leu Glu Lys Arg Glu
 14005 14010 14015
 Thr Ser Arg Leu Leu Trp Thr Val Val Ser Glu Asp Ile Gln Ser Cys
 14020 14025 14030
 Arg His Val Ala Thr Lys Leu Ile Gln Gly Asn Glu Tyr Ile Phe Arg
 14035 14040 14045
 Val Ser Ala Val Asn His Tyr Gly Lys Gly Glu Pro Val Gln Ser Glu
 14050 14055 14060 1
 Pro Val Lys Met Val Asp Arg Phe Gly Pro Pro Gly Pro Pro Glu Lys
 4065 14070 14075 14080
 Pro Glu Val Ser Asn Val Thr Lys Asn Thr Ala Thr Val Ser Trp Lys
 14085 14090 14095
 Arg Pro Val Asp Asp Gly Gly Ser Glu Ile Thr Gly Tyr His Val Glu
 14100 14105 14110
 Arg Arg Glu Lys Lys Ser Leu Arg Trp Val Arg Ala Ile Lys Thr Pro
 14115 14120 14125
 Val Ser Asp Leu Arg Cys Lys Val Thr Gly Leu Gln Glu Gly Ser Thr
 14130 14135 14140 1
 Tyr Glu Phe Arg Val Ser Ala Glu Asn Arg Ala Gly Ile Gly Pro Pro
 4145 14150 14155 14160
 Ser Glu Ala Ser Asp Ser Val Leu Met Lys Asp Ala Ala Tyr Pro Pro
 14165 14170 14175
 Gly Pro Pro Ser Asn Pro His Val Thr Asp Thr Thr Lys Lys Ser Ala
 14180 14185 14190
 Ser Leu Ala Trp Gly Lys Pro His Tyr Asp Gly Gly Leu Glu Ile Thr
 14195 14200 14205
 Gly Tyr Val Val Glu His Gln Lys Val Gly Asp Glu Ala Trp Ile Lys
 14210 14215 14220 1
 Asp Thr Thr Gly Thr Ala Leu Arg Ile Thr Gln Phe Val Val Pro Asp
 4225 14230 14235 14240
 Leu Gln Thr Lys Glu Lys Tyr Asn Phe Arg Ile Ser Ala Ile Asn Asp
 14245 14250 14255
 Ala Gly Val Gly Glu Pro Ala Val Ile Pro Asp Val Glu Ile Val Glu
 14260 14265 14270
 Arg Glu Met Ala Pro Asp Phe Glu Leu Asp Ala Glu Leu Arg Arg Thr
 14275 14280 14285
 Leu Val Val Arg Ala Gly Leu Ser Ile Arg Ile Phe Val Pro Ile Lys
 14290 14295 14300 1
 Gly Arg Pro Ala Pro Glu Val Thr Trp Thr Lys Asp Asn Ile Asn Leu
 4305 14310 14315 14320
 Lys Asn Arg Ala Asn Ile Glu Asn Thr Glu Ser Phe Thr Leu Leu Ile
 14325 14330 14335

Ile Pro Glu Cys Asn Arg Tyr Asp Thr Gly Lys Phe Val Met Thr Ile
 14340 14345 14350
 Glu Asn Pro Ala Gly Lys Lys Ser Gly Phe Val Asn Val Arg Val Leu
 14355 14360 14365
 Asp Thr Pro Gly Pro Val Leu Asn Leu Arg Pro Thr Asp Ile Thr Lys
 14370 14375 14380 1
 Asp Ser Val Thr Leu His Trp Asp Leu Pro Leu Ile Asp Gly Gly Ser
 4385 14390 14395 14400
 Arg Ile Thr Asn Tyr Ile Val Glu Lys Arg Glu Ala Thr Arg Lys Ser
 14405 14410 14415
 Tyr Ser Thr Ala Thr Thr Lys Cys His Lys Cys Thr Tyr Lys Val Thr
 14420 14425 14430
 Gly Leu Ser Glu Gly Cys Glu Tyr Phe Phe Arg Val Met Ala Glu Asn
 14435 14440 14445
 Glu Tyr Gly Ile Gly Glu Pro Thr Glu Thr Thr Glu Pro Val Lys Ala
 14450 14455 14460 1
 Ser Glu Ala Pro Ser Pro Pro Asp Ser Leu Asn Ile Met Asp Ile Thr
 4465 14470 14475 14480
 Lys Ser Thr Val Ser Leu Ala Trp Pro Lys Pro Lys His Asp Gly Gly
 14485 14490 14495
 Ser Lys Ile Thr Gly Tyr Val Ile Glu Ala Gln Arg Lys Gly Ser Asp
 14500 14505 14510
 Gln Trp Thr His Ile Thr Thr Val Lys Gly Leu Glu Cys Val Val Arg
 14515 14520 14525
 Asn Leu Thr Glu Gly Glu Glu Tyr Thr Phe Gln Val Met Ala Val Asn
 14530 14535 14540 1
 Ser Ala Gly Arg Ser Ala Pro Arg Glu Ser Arg Pro Val Ile Val Lys
 4545 14550 14555 14560
 Glu Gln Thr Met Leu Pro Glu Leu Asp Leu Arg Gly Ile Tyr Gln Lys
 14565 14570 14575
 Leu Val Ile Ala Lys Ala Gly Asp Asn Ile Lys Val Glu Ile Pro Val
 14580 14585 14590
 Leu Gly Arg Pro Lys Pro Thr Val Thr Trp Lys Lys Gly Asp Gln Ile
 14595 14600 14605
 Leu Lys Gln Thr Gln Arg Val Asn Phe Glu Thr Thr Ala Thr Ser Thr
 14610 14615 14620 1
 Ile Leu Asn Ile Asn Glu Cys Val Arg Ser Asp Ser Gly Pro Tyr Pro
 4625 14630 14635 14640
 Leu Thr Ala Arg Asn Ile Val Gly Glu Val Gly Asp Val Ile Thr Ile
 14645 14650 14655
 Gln Val His Asp Ile Pro Gly Pro Pro Thr Gly Pro Ile Lys Phe Asp
 14660 14665 14670
 Glu Val Ser Ser Asp Phe Val Thr Phe Ser Trp Asp Pro Pro Glu Asn
 14675 14680 14685
 Asp Gly Gly Val Pro Ile Ser Asn Tyr Val Val Glu Met Arg Gln Thr
 14690 14695 14700 1
 Asp Ser Thr Thr Trp Val Glu Leu Ala Thr Thr Val Ile Arg Thr Thr
 4705 14710 14715 14720
 Tyr Lys Ala Thr Arg Leu Thr Thr Gly Leu Glu Tyr Gln Phe Arg Val
 14725 14730 14735
 Lys Ala Gln Asn Arg Tyr Gly Val Gly Pro Gly Ile Thr Ser Ala Trp
 14740 14745 14750
 Ile Val Ala Asn Tyr Pro Phe Lys Val Pro Gly Pro Pro Gly Thr Pro
 14755 14760 14765
 Gln Val Thr Ala Val Thr Lys Asp Ser Met Thr Ile Ser Trp His Glu
 14770 14775 14780 1
 Pro Leu Ser Asp Gly Gly Ser Pro Ile Leu Gly Tyr His Val Glu Arg
 4785 14790 14795 14800

Lys Glu Arg Asn Gly Ile Leu Trp Gln Thr Val Ser Lys Ala Leu Val
 14805 14810 14815
 Pro Gly Asn Ile Phe Lys Ser Ser Gly Leu Thr Asp Gly Ile Ala Tyr
 14820 14825 14830
 Glu Phe Arg Val Ile Ala Glu Asn Met Ala Gly Lys Ser Lys Pro Ser
 14835 14840 14845
 Lys Pro Ser Glu Pro Met Leu Ala Leu Asp Pro Ile Asp Pro Pro Gly
 14850 14855 14860 1
 Lys Pro Val Pro Leu Asn Ile Thr Arg His Thr Val Thr Leu Lys Trp
 4865 14870 14875 14880
 Ala Lys Pro Glu Tyr Thr Gly Gly Phe Lys Ile Thr Ser Tyr Ile Val
 14885 14890 14895
 Glu Lys Arg Asp Leu Pro Asn Gly Arg Trp Leu Lys Ala Asn Phe Ser
 14900 14905 14910
 Asn Ile Leu Glu Asn Glu Phe Thr Val Ser Gly Leu Thr Glu Asp Ala
 14915 14920 14925
 Ala Tyr Glu Phe Arg Val Ile Ala Lys Asn Ala Ala Gly Ala Ile Ser
 14930 14935 14940 1
 Pro Pro Ser Glu Pro Ser Asp Ala Ile Thr Cys Arg Asp Asp Val Glu
 4945 14950 14955 14960
 Ala Pro Lys Ile Lys Val Asp Val Lys Phe Lys Asp Thr Val Ile Leu
 14965 14970 14975
 Lys Ala Gly Glu Ala Phe Arg Leu Glu Ala Asp Val Ser Gly Arg Pro
 14980 14985 14990
 Pro Pro Thr Met Glu Trp Ser Lys Asp Gly Lys Glu Leu Glu Gly Thr
 14995 15000 15005
 Ala Lys Leu Glu Ile Lys Ile Ala Asp Phe Ser Thr Asn Leu Val Asn
 15010 15015 15020 1
 Lys Asp Ser Thr Arg Arg Asp Ser Gly Ala Tyr Thr Leu Thr Ala Thr
 5025 15030 15035 15040
 Asn Pro Gly Gly Phe Ala Lys His Ile Phe Asn Val Lys Val Leu Asp
 15045 15050 15055
 Arg Pro Gly Pro Pro Glu Gly Pro Leu Ala Val Thr Glu Val Thr Ser
 15060 15065 15070
 Glu Lys Cys Val Leu Ser Trp Phe Pro Pro Leu Asp Asp Gly Gly Ala
 15075 15080 15085
 Lys Ile Asp His Tyr Ile Val Gln Lys Arg Glu Thr Ser Arg Leu Ala
 15090 15095 15100 1
 Trp Thr Asn Val Ala Ser Glu Val Gln Val Thr Lys Leu Lys Val Thr
 5105 15110 15115 15120
 Lys Leu Leu Lys Gly Asn Glu Tyr Ile Phe Arg Val Met Ala Val Asn
 15125 15130 15135
 Lys Tyr Gly Val Gly Glu Pro Leu Glu Ser Glu Pro Val Leu Ala Val
 15140 15145 15150
 Asn Pro Tyr Gly Pro Pro Asp Pro Pro Lys Asn Pro Glu Val Thr Thr
 15155 15160 15165
 Ile Thr Lys Asp Ser Met Val Val Cys Trp Gly His Pro Asp Ser Asp
 15170 15175 15180 1
 Gly Gly Ser Glu Ile Ile Asn Tyr Ile Val Glu Arg Arg Asp Lys Ala
 5185 15190 15195 15200
 Gly Gln Arg Trp Ile Lys Cys Asn Lys Lys Thr Leu Thr Asp Leu Arg
 15205 15210 15215
 Tyr Lys Val Ser Gly Leu Thr Glu Gly His Glu Tyr Glu Phe Arg Ile
 15220 15225 15230
 Met Ala Glu Asn Ala Ala Gly Ile Ser Ala Pro Ser Pro Thr Ser Pro
 15235 15240 15245
 Phe Tyr Lys Ala Cys Asp Thr Val Phe Lys Pro Gly Pro Pro Gly Asn
 15250 15255 15260 1

Pro Arg Val Leu Asp Thr Ser Arg Ser Ser Ile Ser Ile Ala Trp Asn
 5265 15270 15275 15280
 Lys Pro Ile Tyr Asp Gly Gly Ser Glu Ile Thr Gly Tyr Met Val Glu
 15285 15290 15295
 Ile Ala Leu Pro Glu Glu Asp Glu Trp Gln Ile Val Thr Pro Pro Ala
 15300 15305 15310
 Gly Leu Lys Ala Thr Ser Tyr Thr Ile Thr Gly Leu Thr Glu Asn Gln
 15315 15320 15325
 Glu Tyr Lys Ile Arg Ile Tyr Ala Met Asn Ser Glu Gly Leu Gly Glu
 15330 15335 15340 1
 Pro Ala Leu Val Pro Gly Thr Pro Lys Ala Glu Asp Arg Met Leu Pro
 5345 15350 15355 15360
 Pro Glu Ile Glu Leu Asp Ala Asp Leu Arg Lys Val Val Thr Ile Arg
 15365 15370 15375
 Ala Cys Cys Thr Leu Arg Leu Phe Val Pro Ile Lys Gly Arg Pro Asp
 15380 15385 15390
 Pro Glu Val Lys Trp Ala Arg Asp His Gly Glu Ser Leu Asp Lys Ala
 15395 15400 15405
 Ser Ile Glu Ser Ala Ser Ser Tyr Thr Leu Leu Ile Val Gly Asn Val
 15410 15415 15420 1
 Asn Arg Phe Asp Ser Gly Lys Tyr Ile Leu Thr Val Glu Asn Ser Ser
 5425 15430 15435 15440
 Gly Ser Lys Ser Ala Phe Val Asn Val Arg Val Leu Asp Thr Pro Gly
 15445 15450 15455
 Pro Pro Gln Asp Leu Lys Val Lys Glu Val Thr Lys Thr Ser Val Thr
 15460 15465 15470
 Leu Thr Trp Asp Pro Pro Leu Leu Asp Gly Gly Ser Lys Ile Lys Asn
 15475 15480 15485
 Tyr Ile Val Glu Lys Arg Glu Ser Thr Arg Lys Ala Tyr Ser Thr Val
 15490 15495 15500 1
 Ala Thr Asn Cys His Lys Thr Ser Trp Lys Val Asp Gln Leu Gln Glu
 5505 15510 15515 15520
 Gly Cys Ser Tyr Tyr Phe Arg Val Leu Ala Glu Asn Glu Tyr Gly Ile
 15525 15530 15535
 Gly Leu Pro Ala Glu Thr Ala Glu Ser Val Lys Ala Ser Glu Arg Pro
 15540 15545 15550
 Leu Pro Pro Gly Lys Ile Thr Leu Met Asp Val Thr Arg Asn Ser Val
 15555 15560 15565
 Ser Leu Ser Trp Glu Lys Pro Glu His Asp Gly Gly Ser Arg Ile Leu
 15570 15575 15580 1
 Gly Tyr Ile Val Glu Met Gln Thr Lys Gly Ser Asp Lys Trp Ala Thr
 5585 15590 15595 15600
 Cys Ala Thr Val Lys Val Thr Glu Ala Thr Ile Thr Gly Leu Ile Gln
 15605 15610 15615
 Gly Glu Glu Tyr Ser Phe Arg Val Ser Ala Gln Asn Glu Lys Gly Ile
 15620 15625 15630
 Ser Asp Pro Arg Gln Leu Ser Val Pro Val Ile Ala Lys Asp Leu Val
 15635 15640 15645
 Ile Pro Pro Ala Phe Lys Leu Leu Phe Asn Thr Phe Thr Val Leu Ala
 15650 15655 15660 1
 Gly Glu Asp Leu Lys Val Asp Val Pro Phe Ile Gly Arg Pro Thr Pro
 5665 15670 15675 15680
 Ala Val Thr Trp His Lys Asp Asn Val Pro Leu Lys Gln Thr Thr Arg
 15685 15690 15695
 Val Asn Ala Glu Ser Thr Glu Asn Asn Ser Leu Leu Thr Ile Lys Asp
 15700 15705 15710
 Ala Cys Arg Glu Asp Val Gly His Tyr Val Val Lys Leu Thr Asn Ser
 15715 15720 15725

Ala Gly Glu Ala Ile Glu Thr Leu Asn Val Ile Val Leu Asp Lys Pro
 15730 15735 15740 1
 Gly Pro Pro Thr Gly Pro Val Lys Met Asp Glu Val Thr Ala Asp Ser
 5745 15750 15755 15760
 Ile Thr Leu Ser Trp Gly Pro Pro Lys Tyr Asp Gly Gly Ser Ser Ile
 15765 15770 15775
 Asn Asn Tyr Ile Val Glu Lys Arg Asp Thr Ser Thr Thr Thr Trp Gln
 15780 15785 15790
 Ile Val Ser Ala Thr Val Ala Arg Thr Thr Ile Lys Ala Cys Arg Leu
 15795 15800 15805
 Lys Thr Gly Cys Glu Tyr Gln Phe Arg Ile Ala Ala Glu Asn Arg Tyr
 15810 15815 15820 1
 Gly Lys Ser Thr Tyr Leu Asn Ser Glu Pro Thr Val Ala Gln Tyr Pro
 5825 15830 15835 15840
 Phe Lys Val Pro Gly Pro Pro Gly Thr Pro Val Val Thr Leu Ser Ser
 15845 15850 15855
 Arg Asp Ser Met Glu Val Gln Trp Asn Glu Pro Ile Ser Asp Gly Gly
 15860 15865 15870
 Ser Arg Val Ile Gly Tyr His Leu Glu Arg Lys Glu Arg Asn Ser Ile
 15875 15880 15885
 Leu Trp Val Lys Leu Asn Lys Thr Pro Ile Pro Gln Thr Lys Phe Lys
 15890 15895 15900 1
 Thr Thr Gly Leu Glu Glu Gly Val Glu Tyr Glu Phe Arg Val Ser Ala
 5905 15910 15915 15920
 Glu Asn Ile Val Gly Ile Gly Lys Pro Ser Lys Val Ser Glu Cys Tyr
 15925 15930 15935
 Val Ala Arg Asp Pro Cys Asp Pro Pro Gly Arg Pro Glu Ala Ile Ile
 15940 15945 15950
 Val Thr Arg Asn Ser Val Thr Leu Gln Trp Lys Lys Pro Thr Tyr Asp
 15955 15960 15965
 Gly Gly Ser Lys Ile Thr Gly Tyr Ile Val Glu Lys Lys Glu Leu Pro
 15970 15975 15980 1
 Glu Gly Arg Trp Met Lys Ala Ser Phe Thr Asn Ile Ile Asp Thr His
 5985 15990 15995 16000
 Phe Glu Val Thr Gly Leu Val Glu Asp His Arg Tyr Glu Phe Arg Val
 16005 16010 16015
 Ile Ala Arg Asn Ala Ala Gly Val Phe Ser Glu Pro Ser Glu Ser Thr
 16020 16025 16030
 Gly Ala Ile Thr Ala Arg Asp Glu Val Asp Pro Pro Arg Ile Ser Met
 16035 16040 16045
 Asp Pro Lys Tyr Lys Asp Thr Ile Val Val His Ala Gly Glu Ser Phe
 16050 16055 16060 1
 Lys Val Asp Ala Asp Ile Tyr Gly Lys Pro Ile Pro Thr Ile Gln Trp
 6065 16070 16075 16080
 Ile Lys Gly Asp Gln Glu Leu Ser Asn Thr Ala Arg Leu Glu Ile Lys
 16085 16090 16095
 Ser Thr Asp Phe Ala Thr Ser Leu Ser Val Lys Asp Ala Val Arg Val
 16100 16105 16110
 Asp Ser Gly Asn Tyr Ile Leu Lys Ala Lys Asn Val Ala Gly Glu Arg
 16115 16120 16125
 Ser Val Thr Val Asn Val Lys Val Leu Asp Arg Pro Gly Pro Pro Glu
 16130 16135 16140 1
 Gly Pro Val Val Ile Ser Gly Val Thr Ala Glu Lys Cys Thr Leu Ala
 6145 16150 16155 16160
 Trp Lys Pro Pro Leu Gln Asp Gly Gly Ser Asp Ile Ile Asn Tyr Ile
 16165 16170 16175
 Val Glu Arg Arg Glu Thr Ser Arg Leu Val Trp Thr Val Val Asp Ala
 16180 16185 16190

Asn Val Gln Thr Leu Ser Cys Lys Val Thr Lys Leu Leu Glu Gly Asn
 16195 16200 16205
 Glu Tyr Thr Phe Arg Ile Met Ala Val Asn Lys Tyr Gly Val Gly Glu
 16210 16215 16220 1
 Pro Leu Glu Ser Glu Pro Val Val Ala Lys Asn Pro Phe Val Val Pro
 6225 16230 16235 16240
 Asp Ala Pro Lys Ala Pro Glu Val Thr Thr Val Thr Lys Asp Ser Met
 16245 16250 16255
 Ile Val Val Trp Glu Arg Pro Ala Ser Asp Gly Gly Ser Glu Ile Leu
 16260 16265 16270
 Gly Tyr Val Leu Glu Lys Arg Asp Lys Glu Gly Ile Arg Trp Thr Arg
 16275 16280 16285
 Cys His Lys Arg Leu Ile Gly Glu Leu Arg Leu Arg Val Thr Gly Leu
 16290 16295 16300 1
 Ile Glu Asn His Asp Tyr Glu Phe Arg Val Ser Ala Glu Asn Ala Ala
 6305 16310 16315 16320
 Gly Leu Ser Glu Pro Ser Pro Pro Ser Ala Tyr Gln Lys Ala Cys Asp
 16325 16330 16335
 Pro Ile Tyr Lys Pro Gly Pro Pro Asn Asn Pro Lys Val Ile Asp Ile
 16340 16345 16350
 Thr Arg Ser Ser Val Phe Leu Ser Trp Ser Lys Pro Ile Tyr Asp Gly
 16355 16360 16365
 Gly Cys Glu Ile Gln Gly Tyr Ile Val Glu Lys Cys Asp Val Asn Val
 16370 16375 16380 1
 Gly Glu Trp Thr Met Cys Thr Pro Pro Thr Gly Ile Asn Lys Thr Asn
 6385 16390 16395 16400
 Ile Glu Val Glu Lys Leu Leu Glu Lys His Glu Tyr Asn Phe Arg Ile
 16405 16410 16415
 Cys Ala Ile Asn Lys Ala Gly Val Gly Glu His Ala Asp Val Pro Gly
 16420 16425 16430
 Pro Ile Ile Val Glu Glu Lys Leu Glu Ala Pro Asp Ile Asp Leu Asp
 16435 16440 16445
 Leu Glu Leu Arg Lys Ile Ile Asn Ile Arg Ala Gly Gly Ser Leu Arg
 16450 16455 16460 1
 Leu Phe Val Pro Ile Lys Gly Arg Pro Thr Pro Glu Val Lys Trp Gly
 6465 16470 16475 16480
 Lys Val Asp Gly Glu Ile Arg Asp Ala Ala Ile Ile Asp Val Thr Ser
 16485 16490 16495
 Ser Phe Thr Ser Leu Val Leu Asp Asn Val Asn Arg Tyr Asp Ser Gly
 16500 16505 16510
 Lys Tyr Thr Leu Thr Leu Glu Asn Ser Ser Gly Thr Lys Ser Ala Phe
 16515 16520 16525
 Val Thr Val Arg Val Leu Asp Thr Pro Ser Pro Pro Val Asn Leu Lys
 16530 16535 16540 1
 Val Thr Glu Ile Thr Lys Asp Ser Val Ser Ile Thr Trp Glu Pro Pro
 6545 16550 16555 16560
 Leu Leu Asp Gly Gly Ser Lys Ile Lys Asn Tyr Ile Val Glu Lys Arg
 16565 16570 16575
 Glu Ala Thr Arg Lys Ser Tyr Ala Ala Val Val Thr Asn Cys His Lys
 16580 16585 16590
 Asn Ser Trp Lys Ile Asp Gln Leu Gln Glu Gly Cys Ser Tyr Tyr Phe
 16595 16600 16605
 Arg Val Thr Ala Glu Asn Glu Tyr Gly Ile Gly Leu Pro Ala Gln Thr
 16610 16615 16620 1
 Ala Asp Pro Ile Lys Val Ala Glu Val Pro Gln Pro Pro Gly Lys Ile
 6625 16630 16635 16640
 Thr Val Asp Asp Val Thr Arg Asn Ser Val Ser Leu Ser Trp Thr Lys
 16645 16650 16655

Pro Glu His Asp Gly Gly Ser Lys Ile Ile Gln Tyr Ile Val Glu Met
 16660 16665 16670
 Gln Ala Lys His Ser Glu Lys Trp Ser Glu Cys Ala Arg Val Lys Ser
 16675 16680 16685
 Leu Gln Ala Val Ile Thr Asn Leu Thr Gln Gly Glu Glu Tyr Leu Phe
 16690 16695 16700 1
 Arg Val Val Ala Val Asn Glu Lys Gly Arg Ser Asp Pro Arg Ser Leu
 6705 16710 16715 16720
 Ala Val Pro Ile Val Ala Lys Asp Leu Val Ile Glu Pro Asp Val Lys
 16725 16730 16735
 Pro Ala Phe Ser Ser Tyr Ser Val Gln Val Gly Gln Asp Leu Lys Ile
 16740 16745 16750
 Glu Val Pro Ile Ser Gly Arg Pro Lys Pro Thr Ile Thr Trp Thr Lys
 16755 16760 16765
 Asp Gly Leu Pro Leu Lys Gln Thr Thr Arg Ile Asn Val Thr Asp Ser
 16770 16775 16780 1
 Leu Asp Leu Thr Thr Leu Ser Ile Lys Glu Thr His Lys Asp Asp Gly
 6785 16790 16795 16800
 Gly Gln Tyr Gly Ile Thr Val Ala Asn Val Val Gly Gln Lys Thr Ala
 16805 16810 16815
 Ser Ile Glu Ile Val Thr Leu Asp Lys Pro Asp Pro Pro Lys Gly Pro
 16820 16825 16830
 Val Lys Phe Asp Asp Val Ser Ala Glu Ser Ile Thr Leu Ser Trp Asn
 16835 16840 16845
 Pro Pro Leu Tyr Thr Gly Gly Cys Gln Ile Thr Asn Tyr Ile Val Gln
 16850 16855 16860 1
 Lys Arg Asp Thr Thr Thr Thr Val Trp Asp Val Val Ser Ala Thr Val
 6865 16870 16875 16880
 Ala Arg Thr Thr Leu Lys Val Thr Lys Leu Lys Thr Gly Thr Glu Tyr
 16885 16890 16895
 Gln Phe Arg Ile Phe Ala Glu Asn Arg Tyr Gly Gln Ser Phe Ala Leu
 16900 16905 16910
 Glu Ser Asp Pro Ile Val Ala Gln Tyr Pro Tyr Lys Glu Pro Gly Pro
 16915 16920 16925
 Pro Gly Thr Pro Phe Ala Thr Ala Ile Ser Lys Asp Ser Met Val Ile
 16930 16935 16940 1
 Gln Trp His Glu Pro Val Asn Asn Gly Gly Ser Pro Val Ile Gly Tyr
 6945 16950 16955 16960
 His Leu Glu Arg Lys Glu Arg Asn Ser Ile Leu Trp Thr Lys Val Asn
 16965 16970 16975
 Lys Thr Ile Ile His Asp Thr Gln Phe Lys Ala Gln Asn Leu Glu Glu
 16980 16985 16990
 Gly Ile Glu Tyr Glu Phe Arg Val Tyr Ala Glu Asn Ile Val Gly Val
 16995 17000 17005
 Gly Lys Ala Ser Lys Asn Ser Glu Cys Tyr Val Ala Arg Asp Pro Cys
 17010 17015 17020 1
 Asp Pro Pro Gly Thr Pro Glu Pro Ile Met Val Lys Arg Asn Glu Ile
 7025 17030 17035 17040
 Thr Leu Gln Trp Thr Lys Pro Val Tyr Asp Gly Gly Ser Met Ile Thr
 17045 17050 17055
 Gly Tyr Ile Val Glu Lys Arg Asp Leu Pro Asp Gly Arg Trp Met Lys
 17060 17065 17070
 Ala Ser Phe Thr Asn Val Ile Glu Thr Gln Phe Thr Val Ser Gly Leu
 17075 17080 17085
 Thr Glu Asp Gln Arg Tyr Glu Phe Arg Val Ile Ala Lys Asn Ala Ala
 17090 17095 17100 1
 Gly Ala Ile Ser Lys Pro Ser Asp Ser Thr Gly Pro Ile Thr Ala Lys
 7105 17110 17115 17120

Asp Glu Val Glu Leu Pro Arg Ile Ser Met Asp Pro Lys Phe Arg Asp
 17125 17130 17135
 Thr Ile Val Val Asn Ala Gly Glu Thr Phe Arg Leu Glu Ala Asp Val
 17140 17145 17150
 His Gly Lys Pro Leu Pro Thr Ile Glu Trp Leu Arg Gly Asp Lys Glu
 17155 17160 17165
 Ile Glu Glu Ser Ala Arg Cys Glu Ile Lys Asn Thr Asp Phe Lys Ala
 17170 17175 17180 1
 Leu Leu Ile Val Lys Asp Ala Ile Arg Ile Asp Gly Gly Gln Tyr Ile
 7185 17190 17195 17200
 Leu Arg Ala Ser Asn Val Ala Gly Ser Lys Ser Phe Pro Val Asn Val
 17205 17210 17215
 Lys Val Leu Asp Arg Pro Gly Pro Pro Glu Gly Pro Val Gln Val Thr
 17220 17225 17230
 Gly Val Thr Ser Glu Lys Cys Ser Leu Thr Trp Ser Pro Pro Leu Gln
 17235 17240 17245
 Asp Gly Gly Ser Asp Ile Ser His Tyr Val Val Glu Lys Arg Glu Thr
 17250 17255 17260 1
 Ser Arg Leu Ala Trp Thr Val Val Ala Ser Glu Val Val Thr Asn Ser
 7265 17270 17275 17280
 Leu Lys Val Thr Lys Leu Leu Glu Gly Asn Glu Tyr Val Phe Arg Ile
 17285 17290 17295
 Met Ala Val Asn Lys Tyr Gly Val Gly Glu Pro Leu Glu Ser Ala Pro
 17300 17305 17310
 Val Leu Met Lys Asn Pro Phe Val Leu Pro Gly Pro Pro Lys Ser Leu
 17315 17320 17325
 Glu Val Thr Asn Ile Ala Lys Asp Ser Met Thr Val Cys Trp Asn Arg
 17330 17335 17340 1
 Pro Asp Ser Asp Gly Gly Ser Glu Ile Ile Gly Tyr Ile Val Glu Lys
 7345 17350 17355 17360
 Arg Asp Arg Ser Gly Ile Arg Trp Ile Lys Cys Asn Lys Arg Arg Ile
 17365 17370 17375
 Thr Asp Leu Arg Leu Arg Val Thr Gly Leu Thr Glu Asp His Glu Tyr
 17380 17385 17390
 Glu Phe Arg Val Ser Ala Glu Asn Ala Ala Gly Val Gly Glu Pro Ser
 17395 17400 17405
 Pro Ala Thr Val Tyr Tyr Lys Ala Cys Asp Pro Val Phe Lys Pro Gly
 17410 17415 17420 1
 Pro Pro Thr Asn Ala His Ile Val Asp Thr Thr Lys Asn Ser Ile Thr
 7425 17430 17435 17440
 Leu Ala Trp Gly Lys Pro Ile Tyr Asp Gly Gly Ser Glu Ile Leu Gly
 17445 17450 17455
 Tyr Val Val Glu Ile Cys Lys Ala Asp Glu Glu Glu Trp Gln Ile Val
 17460 17465 17470
 Thr Pro Gln Thr Gly Leu Arg Val Thr Arg Phe Glu Ile Ser Lys Leu
 17475 17480 17485
 Thr Glu His Gln Glu Tyr Lys Ile Arg Val Cys Ala Leu Asn Lys Val
 17490 17495 17500 1
 Gly Leu Gly Glu Ala Thr Ser Val Pro Gly Thr Val Lys Pro Glu Asp
 7505 17510 17515 17520
 Lys Leu Glu Ala Pro Glu Leu Asp Leu Asp Ser Glu Leu Arg Lys Gly
 17525 17530 17535
 Ile Val Val Arg Ala Gly Gly Ser Ala Arg Ile His Ile Pro Phe Lys
 17540 17545 17550
 Gly Arg Pro Met Pro Glu Ile Thr Trp Ser Arg Glu Glu Gly Glu Phe
 17555 17560 17565
 Thr Asp Lys Val Gln Ile Glu Lys Gly Val Asn Tyr Thr Gln Leu Ser
 17570 17575 17580 1

Ile Asp Asn Cys Asp Arg Asn Asp Ala Gly Lys Tyr Ile Leu Lys Leu
 7585 17590 17595 17600
 Glu Asn Ser Ser Gly Ser Lys Ser Ala Phe Val Thr Val Lys Val Leu
 17605 17610 17615
 Asp Thr Pro Gly Pro Pro Gln Asn Leu Ala Val Lys Glu Val Arg Lys
 17620 17625 17630
 Asp Ser Ala Phe Leu Val Trp Glu Pro Pro Ile Ile Asp Gly Gly Ala
 17635 17640 17645
 Lys Val Lys Asn Tyr Val Ile Asp Lys Arg Glu Ser Thr Arg Lys Ala
 17650 17655 17660 1
 Tyr Ala Asn Val Ser Ser Lys Cys Ser Lys Thr Ser Phe Lys Val Glu
 7665 17670 17675 17680
 Asn Leu Thr Glu Gly Ala Ile Tyr Tyr Phe Arg Val Met Ala Glu Asn
 17685 17690 17695
 Glu Phe Gly Val Gly Val Pro Val Glu Thr Val Asp Ala Val Lys Ala
 17700 17705 17710
 Ala Glu Pro Pro Ser Pro Pro Gly Lys Val Thr Leu Thr Asp Val Ser
 17715 17720 17725
 Gln Thr Ser Ala Ser Leu Met Trp Glu Lys Pro Glu His Asp Gly Gly
 17730 17735 17740 1
 Ser Arg Val Leu Gly Tyr Val Val Glu Met Gln Pro Lys Gly Thr Glu
 7745 17750 17755 17760
 Lys Trp Ser Ile Val Ala Glu Ser Lys Val Cys Asn Ala Val Val Thr
 17765 17770 17775
 Gly Leu Ser Ser Gly Gln Glu Tyr Gln Phe Arg Val Lys Ala Tyr Asn
 17780 17785 17790
 Glu Lys Gly Lys Ser Asp Pro Arg Val Leu Gly Val Pro Val Ile Ala
 17795 17800 17805
 Lys Asp Leu Thr Ile Gln Pro Ser Leu Lys Leu Pro Phe Asn Thr Tyr
 17810 17815 17820 1
 Ser Ile Gln Ala Gly Glu Asp Leu Lys Ile Glu Ile Pro Val Ile Gly
 7825 17830 17835 17840
 Arg Pro Arg Pro Asn Ile Ser Trp Val Lys Asp Gly Glu Pro Leu Lys
 17845 17850 17855
 Gln Thr Thr Arg Val Asn Val Glu Glu Thr Ala Thr Ser Thr Val Leu
 17860 17865 17870
 His Ile Lys Glu Gly Asn Lys Asp Asp Phe Gly Lys Tyr Thr Val Thr
 17875 17880 17885
 Ala Thr Asn Ser Ala Gly Thr Ala Thr Glu Asn Leu Ser Val Ile Val
 17890 17895 17900 1
 Leu Glu Lys Pro Gly Pro Pro Val Gly Pro Val Arg Phe Asp Glu Val
 7905 17910 17915 17920
 Ser Ala Asp Phe Val Val Ile Ser Trp Glu Pro Pro Ala Tyr Thr Gly
 17925 17930 17935
 Gly Cys Gln Ile Ser Asn Tyr Ile Val Glu Lys Arg Asp Thr Thr Thr
 17940 17945 17950
 Thr Thr Trp His Met Val Ser Ala Thr Val Ala Arg Thr Thr Ile Lys
 17955 17960 17965
 Ile Thr Lys Leu Lys Thr Gly Thr Glu Tyr Gln Phe Arg Ile Phe Ala
 17970 17975 17980 1
 Glu Asn Arg Tyr Gly Lys Ser Ala Pro Leu Asp Ser Lys Ala Val Ile
 7985 17990 17995 18000
 Val Gln Tyr Pro Phe Lys Glu Pro Gly Pro Pro Gly Thr Pro Phe Val
 18005 18010 18015
 Thr Ser Ile Ser Lys Asp Gln Met Leu Val Gln Trp His Glu Pro Val
 18020 18025 18030
 Asn Asp Gly Gly Thr Lys Ile Ile Gly Tyr His Leu Glu Gln Lys Glu
 18035 18040 18045

Lys Asn Ser Ile Leu Trp Val Lys Leu Asn Lys Thr Pro Ile Gln Asp 1
 18050 18055 18060
 Thr Lys Phe Lys Thr Thr Gly Leu Asp Glu Gly Leu Glu Tyr Glu Phe
 8065 18070 18075 18080
 Lys Val Ser Ala Glu Asn Ile Val Gly Ile Gly Lys Pro Ser Lys Val
 18085 18090 18095
 Ser Glu Cys Phe Val Ala Arg Asp Pro Cys Asp Pro Pro Gly Arg Pro
 18100 18105 18110
 Glu Ala Ile Val Ile Thr Arg Asn Asn Val Thr Leu Lys Trp Lys Lys
 18115 18120 18125
 Pro Ala Tyr Asp Gly Gly Ser Lys Ile Thr Gly Tyr Ile Val Glu Lys
 18130 18135 18140 1
 Lys Asp Leu Pro Asp Gly Arg Trp Met Lys Ala Ser Phe Thr Asn Val
 8145 18150 18155 18160
 Leu Glu Thr Glu Phe Thr Val Ser Gly Leu Val Glu Asp Gln Arg Tyr
 18165 18170 18175
 Glu Phe Arg Val Ile Ala Arg Asn Ala Ala Gly Asn Phe Ser Glu Pro
 18180 18185 18190
 Ser Asp Ser Ser Gly Ala Ile Thr Ala Arg Asp Glu Ile Asp Ala Pro
 18195 18200 18205
 Asn Ala Ser Leu Asp Pro Lys Tyr Lys Asp Val Ile Val Val His Ala
 18210 18215 18220 1
 Gly Glu Thr Phe Val Leu Glu Ala Asp Ile Arg Gly Lys Pro Ile Pro
 8225 18230 18235 18240
 Asp Val Val Trp Ser Lys Asp Gly Lys Glu Leu Glu Glu Thr Ala Ala
 18245 18250 18255
 Arg Met Glu Ile Lys Ser Thr Ile Gln Lys Thr Thr Leu Val Val Lys
 18260 18265 18270
 Asp Cys Ile Arg Thr Asp Gly Gly Gln Tyr Ile Leu Lys Leu Ser Asn
 18275 18280 18285
 Val Gly Gly Thr Lys Ser Ile Pro Ile Thr Val Lys Val Leu Asp Arg
 18290 18295 18300 1
 Pro Gly Ser Pro Glu Gly Pro Leu Lys Val Thr Gly Val Thr Ala Glu
 8305 18310 18315 18320
 Lys Cys Tyr Leu Ala Trp Asn Pro Pro Leu Gln Asp Gly Gly Ala Asn
 18325 18330 18335
 Ile Ser His Tyr Ile Ile Glu Lys Arg Glu Thr Ser Arg Leu Ser Trp
 18340 18345 18350
 Thr Gln Val Ser Thr Glu Val Gln Ala Leu Asn Tyr Lys Val Thr Lys
 18355 18360 18365
 Leu Leu Pro Gly Asn Glu Tyr Ile Phe Arg Val Met Ala Val Asn Lys
 18370 18375 18380 1
 Tyr Gly Ile Gly Glu Pro Leu Glu Ser Gly Pro Val Thr Ala Cys Asn
 8385 18390 18395 18400
 Pro Tyr Lys Pro Pro Gly Pro Pro Ser Thr Pro Glu Val Ser Ala Ile
 18405 18410 18415
 Thr Lys Asp Ser Met Val Val Thr Trp Ala Arg Pro Val Asp Asp Gly
 18420 18425 18430
 Gly Thr Glu Ile Glu Gly Tyr Ile Leu Glu Lys Arg Asp Lys Glu Gly
 18435 18440 18445
 Val Arg Trp Thr Lys Cys Asn Lys Lys Thr Leu Thr Asp Leu Arg Leu
 18450 18455 18460 1
 Arg Val Thr Gly Leu Thr Glu Gly His Ser Tyr Glu Phe Arg Val Ala
 8465 18470 18475 18480
 Ala Glu Asn Ala Ala Gly Val Gly Glu Pro Ser Glu Pro Ser Val Phe
 18485 18490 18495
 Tyr Arg Ala Cys Asp Ala Leu Tyr Pro Pro Gly Pro Pro Ser Asn Pro
 18500 18505 18510

Lys Val Thr Asp Thr Ser Arg Ser Ser Val Ser Leu Ala Trp Ser Lys
 18515 18520 18525
 Pro Ile Tyr Asp Gly Gly Ala Pro Val Lys Gly Tyr Val Val Glu Val
 18530 18535 18540 1
 Lys Glu Ala Ala Ala Asp Glu Trp Thr Thr Cys Thr Pro Pro Thr Gly
 8545 18550 18555 18560
 Leu Gln Gly Lys Gln Phe Thr Val Thr Lys Leu Lys Glu Asn Thr Glu
 18565 18570 18575
 Tyr Asn Phe Arg Ile Cys Ala Ile Asn Ser Glu Gly Val Gly Glu Pro
 18580 18585 18590
 Ala Thr Leu Pro Gly Ser Val Val Ala Gln Glu Arg Ile Glu Pro Pro
 18595 18600 18605
 Glu Ile Glu Leu Asp Ala Asp Leu Arg Lys Val Val Val Leu Arg Ala
 18610 18615 18620 1
 Ser Ala Thr Leu Arg Leu Phe Val Thr Ile Lys Gly Arg Pro Glu Pro
 8625 18630 18635 18640
 Glu Val Lys Trp Glu Lys Ala Glu Gly Ile Leu Thr Asp Arg Ala Gln
 18645 18650 18655
 Ile Glu Val Thr Ser Ser Phe Thr Met Leu Val Ile Asp Asn Val Thr
 18660 18665 18670
 Arg Phe Asp Ser Gly Arg Tyr Asn Leu Thr Leu Glu Asn Asn Ser Gly
 18675 18680 18685
 Ser Lys Thr Ala Phe Val Asn Val Arg Val Leu Asp Ser Pro Ser Ala
 18690 18695 18700 1
 Pro Val Asn Leu Thr Ile Arg Glu Val Lys Lys Asp Ser Val Thr Leu
 8705 18710 18715 18720
 Ser Trp Glu Pro Pro Leu Ile Asp Gly Gly Ala Lys Ile Thr Asn Tyr
 18725 18730 18735
 Ile Val Glu Lys Arg Glu Thr Thr Arg Lys Ala Tyr Ala Thr Ile Thr
 18740 18745 18750
 Asn Asn Cys Thr Lys Thr Thr Phe Arg Ile Glu Asn Leu Gln Glu Gly
 18755 18760 18765
 Cys Ser Tyr Tyr Phe Arg Val Leu Ala Ser Asn Glu Tyr Gly Ile Gly
 18770 18775 18780 1
 Leu Pro Ala Glu Thr Thr Glu Pro Val Lys Val Ser Glu Pro Pro Leu
 8785 18790 18795 18800
 Pro Pro Gly Arg Val Thr Leu Val Asp Val Thr Arg Asn Thr Ala Thr
 18805 18810 18815
 Ile Lys Trp Glu Lys Pro Glu Ser Asp Gly Gly Ser Lys Ile Thr Gly
 18820 18825 18830
 Tyr Val Val Glu Met Gln Thr Lys Gly Ser Glu Lys Trp Ser Thr Cys
 18835 18840 18845
 Thr Gln Val Lys Thr Leu Glu Ala Thr Ile Ser Gly Leu Thr Ala Gly
 18850 18855 18860 1
 Glu Glu Tyr Val Phe Arg Val Ala Ala Val Asn Glu Lys Gly Arg Ser
 8865 18870 18875 18880
 Asp Pro Arg Gln Leu Gly Val Pro Val Ile Ala Arg Asp Ile Glu Ile
 18885 18890 18895
 Lys Pro Ser Val Glu Leu Pro Phe His Thr Phe Asn Val Lys Ala Arg
 18900 18905 18910
 Glu Gln Leu Lys Ile Asp Val Pro Phe Lys Gly Arg Pro Gln Ala Thr
 18915 18920 18925
 Val Asn Trp Arg Lys Asp Gly Gln Thr Leu Lys Glu Thr Thr Arg Val
 18930 18935 18940 1
 Asn Val Ser Ser Ser Lys Thr Val Thr Ser Leu Ser Ile Lys Glu Ala
 8945 18950 18955 18960
 Ser Lys Glu Asp Val Gly Thr Tyr Glu Leu Cys Val Ser Asn Ser Ala
 18965 18970 18975

Gly Ser Ile Thr Val Pro Ile Thr Ile Ile Val Leu Asp Arg Pro Gly
 18980 18985 18990
 Pro Pro Gly Pro Ile Arg Ile Asp Glu Val Ser Cys Asp Ser Ile Thr
 18995 19000 19005
 Ile Ser Trp Asn Pro Pro Glu Tyr Asp Gly Gly Cys Gln Ile Ser Asn
 19010 19015 19020 1
 Tyr Ile Val Glu Lys Lys Glu Thr Thr Ser Thr Thr Trp His Ile Val
 9025 19030 19035 19040
 Ser Gln Ala Val Ala Arg Thr Ser Ile Lys Ile Val Arg Leu Thr Thr
 19045 19050 19055
 Gly Ser Glu Tyr Gln Phe Arg Val Cys Ala Glu Asn Arg Tyr Gly Lys
 19060 19065 19070
 Ser Ser Tyr Ser Glu Ser Ser Ala Val Val Ala Glu Tyr Pro Phe Ser
 19075 19080 19085
 Pro Pro Gly Pro Pro Gly Thr Pro Lys Val Val His Ala Thr Lys Ser
 19090 19095 19100 1
 Thr Met Leu Val Thr Trp Gln Val Pro Val Asn Asp Gly Gly Ser Arg
 9105 19110 19115 19120
 Val Ile Gly Tyr His Leu Glu Tyr Lys Glu Arg Ser Ser Ile Leu Trp
 19125 19130 19135
 Ser Lys Ala Asn Lys Ile Leu Ile Ala Asp Thr Gln Val Lys Val Ser
 19140 19145 19150
 Gly Leu Asp Glu Gly Leu Met Tyr Glu Tyr Arg Val Tyr Ala Glu Asn
 19155 19160 19165
 Ile Ala Gly Ile Gly Lys Cys Ser Lys Ser Cys Glu Pro Val Pro Ala
 19170 19175 19180 1
 Arg Asp Pro Cys Asp Pro Pro Gly Gln Pro Glu Val Thr Asn Ile Thr
 9185 19190 19195 19200
 Arg Lys Ser Val Ser Leu Lys Trp Ser Lys Pro His Tyr Asp Gly Gly
 19205 19210 19215
 Ala Lys Ile Thr Gly Tyr Ile Val Glu Arg Arg Glu Leu Pro Asp Gly
 19220 19225 19230
 Arg Trp Leu Lys Cys Asn Tyr Thr Asn Ile Gln Glu Thr Tyr Phe Glu
 19235 19240 19245
 Val Thr Glu Leu Thr Glu Asp Gln Arg Tyr Glu Phe Arg Val Phe Ala
 19250 19255 19260 1
 Arg Asn Ala Ala Asp Ser Val Ser Glu Pro Ser Glu Ser Thr Gly Pro
 9265 19270 19275 19280
 Ile Ile Val Lys Asp Asp Val Glu Pro Pro Arg Val Met Met Asp Val
 19285 19290 19295
 Lys Phe Arg Asp Val Ile Val Val Lys Ala Gly Glu Val Leu Lys Ile
 19300 19305 19310
 Asn Ala Asp Ile Ala Gly Arg Pro Leu Pro Val Ile Ser Trp Ala Lys
 19315 19320 19325
 Asp Gly Ile Glu Ile Glu Glu Arg Ala Arg Thr Glu Ile Ile Ser Thr
 19330 19335 19340 1
 Asp Asn His Thr Leu Leu Thr Val Lys Asp Cys Ile Arg Arg Asp Thr
 9345 19350 19355 19360
 Gly Gln Tyr Val Leu Thr Leu Lys Asn Val Ala Gly Thr Arg Ser Val
 19365 19370 19375
 Ala Val Asn Cys Lys Val Leu Asp Lys Pro Gly Pro Pro Ala Gly Pro
 19380 19385 19390
 Leu Glu Ile Asn Gly Leu Thr Ala Glu Lys Cys Ser Leu Ser Trp Gly
 19395 19400 19405
 Arg Pro Gln Glu Asp Gly Gly Ala Asp Ile Asp Tyr Tyr His Arg Lys
 19410 19415 19420 1
 Lys Arg Glu Thr Ser His Leu Ala Trp Thr Ile Cys Glu Gly Glu Leu
 9425 19430 19435 19440

Gln Met Thr Ser Cys Lys Val Thr Lys Leu Leu Lys Gly Asn Glu Tyr
 19445 19450 19455
 Ile Phe Arg Val Thr Gly Val Asn Lys Tyr Gly Val Gly Glu Pro Leu
 19460 19465 19470
 Glu Ser Val Ala Ile Lys Ala Leu Asp Pro Phe Thr Val Pro Ser Pro
 19475 19480 19485
 Pro Thr Ser Leu Glu Ile Thr Ser Val Thr Lys Glu Ser Met Thr Leu
 19490 19495 19500 1
 Cys Trp Ser Arg Pro Glu Ser Asp Gly Gly Ser Glu Ile Ser Gly Tyr
 9505 19510 19515 19520
 Ile Ile Glu Arg Arg Glu Lys Asn Ser Leu Arg Trp Val Arg Val Asn
 19525 19530 19535
 Lys Lys Pro Val Tyr Asp Leu Arg Val Lys Ser Thr Gly Leu Arg Glu
 19540 19545 19550
 Gly Cys Glu Tyr Glu Tyr Arg Val Tyr Ala Glu Asn Ala Ala Gly Leu
 19555 19560 19565
 Ser Leu Pro Ser Glu Thr Ser Pro Leu Ile Arg Ala Glu Asp Pro Val
 19570 19575 19580 1
 Phe Leu Pro Ser Pro Pro Ser Lys Pro Lys Ile Val Asp Ser Gly Lys
 9585 19590 19595 19600
 Thr Thr Ile Thr Ile Ala Trp Val Lys Pro Leu Phe Asp Gly Gly Ala
 19605 19610 19615
 Pro Ile Thr Gly Tyr Thr Val Glu Tyr Lys Lys Ser Asp Asp Thr Asp
 19620 19625 19630
 Trp Lys Thr Ser Ile Gln Ser Leu Arg Gly Thr Glu Tyr Thr Ile Ser
 19635 19640 19645
 Gly Leu Thr Thr Gly Ala Glu Tyr Val Phe Arg Val Lys Ser Val Asn
 19650 19655 19660 1
 Lys Val Gly Ala Ser Asp Pro Ser Asp Ser Ser Asp Pro Gln Ile Ala
 9665 19670 19675 19680
 Lys Glu Arg Glu Glu Glu Pro Leu Phe Asp Ile Asp Ser Glu Met Arg
 19685 19690 19695
 Lys Thr Leu Ile Val Lys Ala Gly Ala Ser Phe Thr Met Thr Val Pro
 19700 19705 19710
 Phe Arg Gly Arg Pro Val Pro Asn Val Leu Trp Ser Lys Pro Asp Thr
 19715 19720 19725
 Asp Leu Arg Thr Arg Ala Tyr Val Asp Thr Thr Asp Ser Arg Thr Ser
 19730 19735 19740 1
 Leu Thr Ile Glu Asn Ala Asn Arg Asn Asp Ser Gly Lys Tyr Thr Leu
 9745 19750 19755 19760
 Thr Ile Gln Asn Val Leu Ser Ala Ala Ser Leu Thr Leu Val Val Lys
 19765 19770 19775
 Val Leu Asp Thr Pro Gly Pro Pro Thr Asn Ile Thr Val Gln Asp Val
 19780 19785 19790
 Thr Lys Glu Ser Ala Val Leu Ser Trp Asp Val Pro Glu Asn Asp Gly
 19795 19800 19805
 Gly Ala Pro Val Lys Asn Tyr His Ile Glu Lys Arg Glu Ala Ser Lys
 19810 19815 19820 1
 Lys Ala Trp Val Ser Val Thr Asn Asn Cys Asn Arg Leu Ser Tyr Lys
 9825 19830 19835 19840
 Val Thr Asn Leu Gln Glu Gly Ala Ile Tyr Tyr Phe Arg Val Ser Gly
 19845 19850 19855
 Glu Asn Glu Phe Gly Val Gly Ile Pro Ala Glu Thr Lys Glu Gly Val
 19860 19865 19870
 Lys Ile Thr Glu Lys Pro Ser Pro Pro Glu Lys Leu Gly Val Thr Ser
 19875 19880 19885
 Ile Ser Lys Asp Ser Val Ser Leu Thr Trp Leu Lys Pro Glu His Asp
 19890 19895 19900 1

Gly Gly Ser Arg Ile Val His Tyr Val Val Glu Ala Leu Glu Lys Gly
 9905 19910 19915 19920
 Gln Lys Asn Trp Val Lys Cys Ala Val Ala Lys Ser Thr His His Val
 19925 19930 19935
 Val Ser Gly Leu Arg Glu Asn Ser Glu Tyr Phe Phe Arg Val Phe Ala
 19940 19945 19950
 Glu Asn Gln Ala Gly Leu Ser Asp Pro Arg Glu Leu Leu Leu Pro Val
 19955 19960 19965
 Leu Ile Lys Glu Gln Leu Glu Pro Pro Glu Ile Asp Met Lys Asn Phe
 19970 19975 19980 1
 Pro Ser His Thr Val Tyr Val Arg Ala Gly Ser Asn Leu Lys Val Asp
 9985 19990 19995 20000
 Ile Pro Ile Ser Gly Lys Pro Leu Pro Lys Val Thr Leu Ser Arg Asp
 20005 20010 20015
 Gly Val Pro Leu Lys Ala Thr Met Arg Phe Asn Thr Glu Ile Thr Ala
 20020 20025 20030
 Glu Asn Leu Thr Ile Asn Leu Lys Glu Ser Val Thr Ala Asp Ala Gly
 20035 20040 20045
 Arg Tyr Glu Ile Thr Ala Ala Asn Ser Ser Gly Thr Thr Lys Ala Phe
 20050 20055 20060 2
 Ile Asn Ile Val Val Leu Asp Arg Pro Gly Pro Pro Thr Gly Pro Val
 0065 20070 20075 20080
 Val Ile Ser Asp Ile Thr Glu Glu Ser Val Thr Leu Lys Trp Glu Pro
 20085 20090 20095
 Pro Lys Tyr Asp Gly Gly Ser Gln Val Thr Asn Tyr Ile Leu Leu Lys
 20100 20105 20110
 Arg Glu Thr Ser Thr Ala Val Trp Thr Glu Val Ser Ala Thr Val Ala
 20115 20120 20125
 Arg Thr Met Met Lys Val Met Lys Leu Thr Thr Gly Glu Glu Tyr Gln
 20130 20135 20140 2
 Phe Arg Ile Lys Ala Glu Asn Arg Phe Gly Ile Ser Asp His Ile Asp
 0145 20150 20155 20160
 Ser Ala Cys Val Thr Val Lys Leu Pro Tyr Thr Thr Pro Gly Pro Pro
 20165 20170 20175
 Ser Thr Pro Trp Val Thr Asn Val Thr Arg Glu Ser Ile Thr Val Gly
 20180 20185 20190
 Trp His Glu Pro Val Ser Asn Gly Gly Ser Ala Val Val Gly Tyr His
 20195 20200 20205
 Leu Glu Met Lys Asp Arg Asn Ser Ile Leu Trp Gln Lys Ala Asn Lys
 20210 20215 20220 2
 Leu Val Ile Arg Thr Thr His Phe Lys Val Thr Thr Ile Ser Ala Gly
 0225 20230 20235 20240
 Leu Ile Tyr Glu Phe Arg Val Tyr Ala Glu Asn Ala Ala Gly Val Gly
 20245 20250 20255
 Lys Pro Ser His Pro Ser Glu Pro Val Leu Ala Ile Asp Ala Cys Glu
 20260 20265 20270
 Pro Pro Arg Asn Val Arg Ile Thr Asp Ile Ser Lys Asn Ser Val Ser
 20275 20280 20285
 Leu Ser Trp Gln Gln Pro Ala Phe Asp Gly Gly Ser Lys Ile Thr Gly
 20290 20295 20300 2
 Tyr Ile Val Glu Arg Arg Asp Leu Pro Asp Gly Arg Trp Thr Lys Ala
 0305 20310 20315 20320
 Ser Phe Thr Asn Val Thr Glu Thr Gln Phe Thr Ile Ser Gly Leu Thr
 20325 20330 20335
 Gln Asn Ser Gln Tyr Glu Phe Arg Val Phe Ala Arg Asn Ala Val Gly
 20340 20345 20350
 Ser Ile Ser Asn Pro Ser Glu Val Val Gly Pro Ile Thr Cys Ile Asp
 20355 20360 20365

Ser Tyr Gly Gly Pro Val Ile Asp Leu Pro Leu Glu Tyr Thr Glu Val
 20370 20375 20380 2
 Val Lys Tyr Arg Ala Gly Thr Ser Val Lys Leu Arg Ala Gly Ile Ser
 0385 20390 20395 20400
 Gly Lys Pro Ala Pro Thr Ile Glu Trp Tyr Lys Asp Asp Lys Glu Leu
 20405 20410 20415
 Gln Thr Asn Ala Leu Val Cys Val Glu Asn Thr Thr Asp Leu Ala Ser
 20420 20425 20430
 Ile Leu Ile Lys Asp Ala Asp Arg Leu Asn Ser Gly Cys Tyr Glu Leu
 20435 20440 20445
 Lys Leu Arg Asn Ala Met Ala Ser Ala Ser Ala Thr Ile Arg Val Gln
 20450 20455 20460 2
 Ile Leu Asp Lys Pro Gly Pro Pro Gly Gly Pro Ile Glu Phe Lys Thr
 0465 20470 20475 20480
 Val Thr Ala Glu Lys Ile Thr Leu Leu Trp Arg Pro Pro Ala Asp Asp
 20485 20490 20495
 Gly Gly Ala Lys Ile Thr His Tyr Ile Val Glu Lys Arg Glu Thr Ser
 20500 20505 20510
 Arg Val Val Trp Ser Met Val Ser Glu His Leu Glu Glu Cys Ile Ile
 20515 20520 20525
 Thr Thr Thr Lys Ile Ile Lys Gly Asn Glu Tyr Ile Phe Arg Val Arg
 20530 20535 20540 2
 Ala Val Asn Lys Tyr Gly Ile Gly Glu Pro Leu Glu Ser Asp Ser Val
 0545 20550 20555 20560
 Val Ala Lys Asn Ala Phe Val Thr Pro Gly Pro Pro Gly Ile Pro Glu
 20565 20570 20575
 Val Thr Lys Ile Thr Lys Asn Ser Met Thr Val Val Trp Ser Arg Pro
 20580 20585 20590
 Ile Ala Asp Gly Gly Ser Asp Ile Ser Gly Tyr Phe Leu Glu Lys Arg
 20595 20600 20605
 Asp Lys Lys Ser Leu Gly Trp Phe Lys Val Leu Lys Glu Thr Ile Arg
 20610 20615 20620 2
 Asp Thr Arg Gln Lys Val Thr Gly Leu Thr Glu Asn Ser Asp Tyr Gln
 0625 20630 20635 20640
 Tyr Arg Val Cys Ala Val Asn Ala Ala Gly Gln Gly Pro Phe Ser Glu
 20645 20650 20655
 Pro Ser Glu Phe Tyr Lys Ala Ala Asp Pro Ile Asp Pro Pro Gly Pro
 20660 20665 20670
 Pro Ala Lys Ile Arg Ile Ala Asp Ser Thr Lys Ser Ser Ile Thr Leu
 20675 20680 20685
 Gly Trp Ser Lys Pro Val Tyr Asp Gly Gly Ser Ala Val Thr Gly Tyr
 20690 20695 20700 2
 Val Val Glu Ile Arg Gln Gly Glu Glu Glu Glu Trp Thr Thr Val Ser
 0705 20710 20715 20720
 Thr Lys Gly Glu Val Arg Thr Thr Glu Tyr Val Val Ser Asn Leu Lys
 20725 20730 20735
 Pro Gly Val Asn Tyr Tyr Phe Arg Val Ser Ala Val Asn Cys Ala Gly
 20740 20745 20750
 Gln Gly Glu Pro Ile Glu Met Asn Glu Pro Val Gln Ala Lys Asp Ile
 20755 20760 20765
 Leu Glu Ala Pro Glu Ile Asp Leu Asp Val Ala Leu Arg Thr Ser Val
 20770 20775 20780 2
 Ile Ala Lys Ala Gly Glu Asp Val Gln Val Leu Ile Pro Phe Lys Gly
 0785 20790 20795 20800
 Arg Pro Pro Pro Thr Val Thr Trp Arg Lys Asp Glu Lys Asn Leu Gly
 20805 20810 20815
 Ser Asp Ala Arg Tyr Ser Ile Glu Asn Thr Asp Ser Ser Ser Leu Leu
 20820 20825 20830

Thr Val Val Lys Val Thr Asp Thr Ser Lys Thr Thr Val Ser Leu Glu
 21765 21770 21775
 Trp Ser Lys Pro Val Phe Asp Gly Gly Met Glu Ile Ile Gly Tyr Ile
 21780 21785 21790
 Ile Glu Met Cys Lys Thr Asp Leu Gly Asp Trp His Lys Val Asn Ala
 21795 21800 21805
 Glu Ala Cys Val Lys Thr Arg Tyr Thr Val Thr Asp Leu Gln Ala Gly
 21810 21815 21820 2
 Glu Glu Tyr Lys Phe Arg Val Ser Ala Ile Asn Gly Ala Gly Lys Gly
 1825 21830 21835 21840
 Asp Ser Cys Glu Val Thr Gly Thr Ile Lys Ala Val Asp Arg Leu Thr
 21845 21850 21855
 Ala Pro Glu Leu Asp Ile Asp Ala Asn Phe Lys Gln Thr His Val Val
 21860 21865 21870
 Arg Ala Gly Ala Ser Ile Arg Leu Phe Ile Ala Tyr Gln Gly Arg Pro
 21875 21880 21885
 Thr Pro Thr Ala Val Trp Ser Lys Pro Asp Ser Asn Leu Ser Leu Arg
 21890 21895 21900 2
 Ala Asp Ile His Thr Thr Asp Ser Phe Ser Thr Leu Thr Val Glu Asn
 1905 21910 21915 21920
 Cys Asn Arg Asn Asp Ala Gly Lys Tyr Thr Leu Thr Val Glu Asn Asn
 21925 21930 21935
 Ser Gly Ser Lys Ser Ile Thr Phe Thr Val Lys Val Leu Asp Thr Pro
 21940 21945 21950
 Gly Pro Pro Gly Pro Ile Thr Phe Lys Asp Val Thr Arg Gly Ser Ala
 21955 21960 21965
 Thr Leu Met Trp Asp Ala Pro Leu Leu Asp Gly Gly Ala Arg Ile His
 21970 21975 21980 2
 His Tyr Val Val Glu Lys Arg Glu Ala Ser Arg Arg Ser Trp Gln Val
 1985 21990 21995 22000
 Ile Ser Glu Lys Cys Thr Arg Gln Ile Phe Lys Val Asn Asp Leu Ala
 22005 22010 22015
 Glu Gly Val Pro Tyr Tyr Phe Arg Val Ser Ala Val Asn Glu Tyr Gly
 22020 22025 22030
 Val Gly Glu Pro Tyr Glu Met Pro Glu Pro Ile Val Ala Thr Glu Gln
 22035 22040 22045
 Pro Ala Pro Pro Arg Arg Leu Asp Val Val Asp Thr Ser Lys Ser Ser
 22050 22055 22060 2
 Ala Val Leu Ala Trp Leu Lys Pro Asp His Asp Gly Gly Ser Arg Ile
 2065 22070 22075 22080
 Thr Gly Tyr Leu Leu Glu Met Arg Gln Lys Gly Ser Asp Leu Trp Val
 22085 22090 22095
 Glu Ala Gly His Thr Lys Gln Leu Thr Phe Thr Val Glu Arg Leu Val
 22100 22105 22110
 Glu Lys Thr Glu Tyr Glu Phe Arg Val Lys Ala Lys Asn Asp Ala Gly
 22115 22120 22125
 Tyr Ser Glu Pro Arg Glu Ala Phe Ser Ser Val Ile Ile Lys Glu Pro
 22130 22135 22140 2
 Gln Ile Glu Pro Thr Ala Asp Leu Thr Gly Ile Thr Asn Gln Leu Ile
 2145 22150 22155 22160
 Thr Cys Lys Ala Gly Ser Pro Phe Thr Ile Asp Val Pro Ile Ser Gly
 22165 22170 22175
 Arg Pro Ala Pro Lys Val Thr Trp Lys Leu Glu Glu Met Arg Leu Lys
 22180 22185 22190
 Glu Thr Asp Arg Val Ser Ile Thr Thr Lys Asp Arg Thr Thr Leu
 22195 22200 22205
 Thr Val Lys Asp Ser Met Arg Gly Asp Ser Gly Arg Tyr Phe Leu Thr
 22210 22215 22220 2

Leu Glu Asn Thr Ala Gly Val Lys Thr Phe Ser Val Thr Val Val Val
 2225 22230 22235 22240
 Ile Gly Arg Pro Gly Pro Val Thr Gly Pro Ile Glu Val Ser Ser Val
 22245 22250 22255
 Ser Ala Glu Ser Cys Val Leu Ser Trp Gly Glu Pro Lys Asp Gly Gly
 22260 22265 22270
 Gly Thr Glu Ile Thr Asn Tyr Ile Val Glu Lys Arg Glu Ser Gly Thr
 22275 22280 22285
 Thr Ala Trp Gln Leu Val Asn Ser Ser Val Lys Arg Thr Gln Ile Lys
 22290 22295 22300 2
 Val Thr His Leu Thr Lys Tyr Met Glu Tyr Ser Phe Arg Val Ser Ser
 2305 22310 22315 22320
 Glu Asn Arg Phe Gly Val Ser Lys Pro Leu Glu Ser Ala Pro Ile Ile
 22325 22330 22335
 Ala Glu His Pro Phe Val Pro Pro Ser Ala Pro Thr Arg Pro Glu Val
 22340 22345 22350
 Tyr His Val Ser Ala Asn Ala Met Ser Ile Arg Trp Glu Glu Pro Tyr
 22355 22360 22365
 His Asp Gly Gly Ser Lys Ile Ile Gly Tyr Trp Val Glu Lys Lys Glu
 22370 22375 22380 2
 Arg Asn Thr Ile Leu Trp Val Lys Glu Asn Lys Val Pro Cys Leu Glu
 2385 22390 22395 22400
 Cys Asn Tyr Lys Val Thr Gly Leu Val Glu Gly Leu Glu Tyr Gln Phe
 22405 22410 22415
 Arg Thr Tyr Ala Leu Asn Ala Ala Gly Val Ser Lys Ala Ser Glu Ala
 22420 22425 22430
 Ser Arg Pro Ile Met Ala Gln Asn Pro Val Asp Ala Pro Gly Arg Pro
 22435 22440 22445
 Glu Val Thr Asp Val Thr Arg Ser Thr Val Ser Leu Ile Trp Ser Ala
 22450 22455 22460 2
 Pro Ala Tyr Asp Gly Gly Ser Lys Val Val Gly Tyr Ile Ile Glu Arg
 2465 22470 22475 22480
 Lys Pro Val Ser Glu Val Gly Asp Gly Arg Trp Leu Lys Cys Asn Tyr
 22485 22490 22495
 Thr Ile Val Ser Asp Asn Phe Phe Thr Val Thr Ala Leu Ser Glu Gly
 22500 22505 22510
 Asp Thr Tyr Glu Phe Arg Val Leu Ala Lys Asn Ala Ala Gly Val Ile
 22515 22520 22525
 Ser Lys Gly Ser Glu Ser Thr Gly Pro Val Thr Cys Arg Asp Glu Tyr
 22530 22535 22540 2
 Ala Pro Pro Lys Ala Glu Leu Asp Ala Arg Leu His Gly Asp Leu Val
 2545 22550 22555 22560
 Thr Ile Arg Ala Gly Ser Asp Leu Val Leu Asp Ala Ala Val Gly Gly
 22565 22570 22575
 Lys Pro Glu Pro Lys Ile Ile Trp Thr Lys Gly Asp Lys Glu Leu Asp
 22580 22585 22590
 Leu Cys Glu Lys Val Ser Leu Gln Tyr Thr Gly Lys Arg Ala Thr Ala
 22595 22600 22605
 Val Ile Lys Phe Cys Asp Arg Ser Asp Ser Gly Lys Tyr Thr Leu Thr
 22610 22615 22620 2
 Val Lys Asn Ala Ser Gly Thr Lys Ala Val Ser Val Met Val Lys Val
 2625 22630 22635 22640
 Leu Asp Ser Pro Gly Pro Cys Gly Lys Leu Thr Val Ser Arg Val Thr
 22645 22650 22655
 Gln Glu Lys Cys Thr Leu Ala Trp Ser Leu Pro Gln Glu Asp Gly Gly
 22660 22665 22670
 Ala Glu Ile Thr His Tyr Ile Val Glu Arg Arg Glu Thr Ser Arg Leu
 22675 22680 22685

Asn Trp Val Ile Val Glu Gly Glu Cys Pro Thr Leu Ser Tyr Val Val 22690 22695 22700 2
 Thr Arg Leu Ile Lys Asn Asn Glu Tyr Ile Phe Arg Val Arg Ala Val 2705 22710 22715 22720
 Asn Lys Tyr Gly Pro Gly Val Pro Val Glu Ser Glu Pro Ile Val Ala 22725 22730 22735
 Arg Asn Ser Phe Thr Ile Pro Ser Pro Gly Ile Pro Glu Glu Val 22740 22745 22750
 Gly Thr Gly Lys Glu His Ile Ile Ile Gln Trp Thr Lys Pro Glu Ser 22755 22760 22765
 Asp Gly Gly Asn Glu Ile Ser Asn Tyr Leu Val Asp Lys Arg Glu Lys 22770 22775 22780 2
 Glu Ser Leu Arg Trp Thr Arg Val Asn Lys Asp Tyr Val Val Tyr Asp 2785 22790 22795 22800
 Thr Arg Leu Lys Val Thr Ser Leu Met Glu Gly Cys Asp Tyr Gln Phe 22805 22810 22815
 Arg Val Thr Ala Val Asn Ala Ala Gly Asn Ser Glu Pro Ser Glu Arg 22820 22825 22830
 Ser Asn Phe Ile Ser Cys Arg Glu Pro Ser Tyr Thr Pro Gly Pro Pro 22835 22840 22845
 Ser Ala Pro Arg Val Val Asp Thr Thr Lys His Ser Ile Ser Leu Ala 22850 22855 22860 2
 Trp Thr Lys Pro Met Tyr Asp Gly Gly Thr Asp Ile Val Gly Tyr Val 2865 22870 22875 22880
 Leu Glu Met Gln Glu Lys Asp Thr Asp Gln Trp Tyr Arg Val His Thr 22885 22890 22895
 Asn Ala Thr Ile Arg Asn Thr Glu Phe Thr Val Pro Asp Leu Lys Met 22900 22905 22910
 Gly Gln Lys Tyr Ser Phe Arg Val Ala Ala Val Asn Val Lys Gly Met 22915 22920 22925
 Ser Glu Tyr Ser Glu Ser Ile Ala Glu Ile Glu Pro Val Glu Arg Ile 22930 22935 22940 2
 Glu Ile Pro Asp Leu Glu Leu Ala Asp Asp Leu Lys Lys Thr Val Thr 2945 22950 22955 22960
 Ile Arg Ala Gly Ala Ser Leu Arg Leu Met Val Ser Val Ser Gly Arg 22965 22970 22975
 Pro Pro Pro Val Ile Thr Trp Ser Lys Gln Gly Ile Asp Leu Ala Ser 22980 22985 22990
 Arg Ala Ile Ile Asp Thr Thr Glu Ser Tyr Ser Leu Ile Val Asp 22995 23000 23005
 Lys Val Asn Arg Tyr Asp Ala Gly Lys Tyr Thr Ile Glu Ala Glu Asn 23010 23015 23020 2
 Gln Ser Gly Lys Lys Ser Ala Thr Val Leu Val Lys Val Tyr Asp Thr 3025 23030 23035 23040
 Pro Gly Pro Cys Pro Ser Val Lys Val Lys Glu Val Ser Arg Asp Ser 23045 23050 23055
 Val Thr Ile Thr Trp Glu Ile Pro Thr Ile Asp Gly Gly Ala Pro Ile 23060 23065 23070
 Asn Asn Tyr Ile Val Glu Lys Arg Glu Ala Ala Met Arg Ala Phe Lys 23075 23080 23085
 Thr Val Thr Thr Lys Cys Ser Lys Thr Leu Tyr Arg Ile Ser Gly Leu 23090 23095 23100 2
 Val Glu Gly Thr Met His Tyr Phe Arg Val Leu Pro Glu Asn Ile Tyr 3105 23110 23115 23120
 Gly Ile Gly Glu Pro Cys Glu Thr Ser Asp Ala Val Leu Val Ser Glu 23125 23130 23135
 Val Pro Leu Val Pro Ala Lys Leu Glu Val Val Asp Val Thr Lys Ser 23140 23145 23150

Thr Val Thr Leu Ala Trp Glu Lys Pro Leu Tyr Asp Gly Gly Ser Arg
 23155 23160 23165
 Leu Thr Gly Tyr Val Leu Glu Ala Cys Lys Ala Gly Thr Glu Arg Trp
 23170 23175 23180 2
 Met Lys Val Val Thr Leu Lys Pro Thr Val Leu Glu His Thr Val Thr
 3185 23190 23195 23200
 Ser Leu Asn Glu Gly Glu Gln Tyr Leu Phe Arg Ile Arg Ala Gln Asn
 23205 23210 23215
 Glu Lys Gly Val Ser Glu Pro Arg Glu Thr Val Thr Ala Val Thr Val
 23220 23225 23230
 Gln Asp Leu Arg Val Leu Pro Thr Ile Asp Leu Ser Thr Met Pro Gln
 23235 23240 23245
 Lys Thr Ile His Val Pro Ala Gly Arg Pro Val Glu Leu Val Ile Pro
 23250 23255 23260 2
 Ile Ala Gly Arg Pro Pro Pro Ala Ala Ser Trp Phe Phe Ala Gly Ser
 3265 23270 23275 23280
 Lys Leu Arg Glu Ser Glu Arg Val Thr Val Glu Thr His Thr Lys Val
 23285 23290 23295
 Ala Lys Leu Thr Ile Arg Glu Thr Thr Ile Arg Asp Thr Gly Glu Tyr
 23300 23305 23310
 Thr Leu Glu Leu Lys Asn Val Thr Gly Thr Thr Ser Glu Thr Ile Lys
 23315 23320 23325
 Val Ile Ile Leu Asp Lys Pro Gly Pro Pro Thr Gly Pro Ile Lys Ile
 23330 23335 23340 2
 Asp Glu Ile Asp Ala Thr Ser Ile Thr Ile Ser Trp Glu Pro Pro Glu
 3345 23350 23355 23360
 Leu Asp Gly Gly Ala Pro Leu Ser Gly Tyr Val Val Glu Gln Arg Asp
 23365 23370 23375
 Ala His Arg Pro Gly Trp Leu Pro Val Ser Glu Ser Val Thr Arg Ser
 23380 23385 23390
 Thr Phe Lys Phe Thr Arg Leu Thr Glu Gly Asn Glu Tyr Val Phe Arg
 23395 23400 23405
 Val Ala Ala Thr Asn Arg Phe Gly Ile Gly Ser Tyr Leu Gln Ser Glu
 23410 23415 23420 2
 Val Ile Glu Cys Arg Ser Ser Ile Arg Ile Pro Gly Pro Pro Glu Thr
 3425 23430 23435 23440
 Leu Gln Ile Phe Asp Val Ser Arg Asp Gly Met Thr Leu Thr Trp Tyr
 23445 23450 23455
 Pro Pro Glu Asp Asp Gly Gly Ser Gln Val Thr Gly Tyr Ile Val Glu
 23460 23465 23470
 Arg Lys Glu Val Arg Ala Asp Arg Trp Val Arg Val Asn Lys Val Pro
 23475 23480 23485
 Val Thr Met Thr Arg Tyr Arg Ser Thr Gly Leu Thr Glu Gly Leu Glu
 23490 23495 23500 2
 Tyr Glu His Arg Val Thr Ala Ile Asn Ala Arg Gly Ser Gly Lys Pro
 3505 23510 23515 23520
 Ser Arg Pro Ser Lys Pro Ile Val Ala Met Asp Pro Ile Ala Pro Pro
 23525 23530 23535
 Gly Lys Pro Gln Asn Pro Arg Val Thr Asp Thr Thr Arg Thr Ser Val
 23540 23545 23550
 Ser Leu Ala Trp Ser Val Pro Glu Asp Glu Gly Gly Ser Lys Val Thr
 23555 23560 23565
 Gly Tyr Leu Ile Glu Met Gln Lys Val Asp Gln His Glu Trp Thr Lys
 23570 23575 23580 2
 Cys Asn Thr Thr Pro Thr Lys Ile Arg Glu Tyr Thr Leu Thr His Leu
 3585 23590 23595 23600
 Pro Gln Gly Ala Glu Tyr Arg Phe Arg Val Leu Ala Cys Asn Ala Gly
 23605 23610 23615

Gly Pro Gly Glu Pro Ala Glu Val Pro Gly Thr Val Lys Val Thr Glu
 23620 23625 23630
 Met Leu Glu Tyr Pro Asp Tyr Glu Leu Asp Glu Arg Tyr Gln Glu Gly
 23635 23640 23645
 Ile Phe Val Arg Gln Gly Gly Val Ile Arg Leu Thr Ile Pro Ile Lys
 23650 23655 23660 2
 Gly Lys Pro Phe Pro Ile Cys Lys Trp Thr Lys Glu Gly Gln Asp Ile
 3665 23670 23675 23680
 Ser Lys Arg Ala Met Ile Ala Thr Ser Glu Thr His Thr Glu Leu Val
 23685 23690 23695
 Ile Lys Glu Ala Asp Arg Gly Asp Ser Gly Thr Tyr Asp Leu Val Leu
 23700 23705 23710
 Glu Asn Lys Cys Gly Lys Lys Ala Val Tyr Ile Lys Val Arg Val Ile
 23715 23720 23725
 Gly Ser Pro Asn Ser Pro Glu Gly Pro Leu Glu Tyr Asp Asp Ile Gln
 23730 23735 23740 2
 Val Arg Ser Val Arg Val Ser Trp Arg Pro Pro Ala Asp Asp Gly Gly
 3745 23750 23755 23760
 Ala Asp Ile Leu Gly Tyr Ile Leu Glu Arg Arg Glu Val Pro Lys Ala
 23765 23770 23775
 Ala Trp Tyr Thr Ile Asp Ser Arg Val Arg Gly Thr Ser Leu Val Val
 23780 23785 23790
 Lys Gly Leu Lys Glu Asn Val Glu Tyr His Phe Arg Val Ser Ala Glu
 23795 23800 23805
 Asn Gln Phe Gly Ile Ser Lys Pro Leu Lys Ser Glu Glu Pro Val Thr
 23810 23815 23820 2
 Pro Lys Thr Pro Leu Asn Pro Pro Glu Pro Pro Ser Asn Pro Pro Glu
 3825 23830 23835 23840
 Val Leu Asp Val Thr Lys Ser Ser Val Ser Leu Ser Trp Ser Arg Pro
 23845 23850 23855
 Lys Asp Asp Gly Gly Ser Arg Val Thr Gly Tyr Tyr Ile Glu Arg Lys
 23860 23865 23870
 Glu Thr Ser Thr Asp Lys Trp Val Arg His Asn Lys Thr Gln Ile Thr
 23875 23880 23885
 Thr Thr Met Tyr Thr Val Thr Gly Leu Val Pro Asp Ala Glu Tyr Gln
 23890 23895 23900 2
 Phe Arg Ile Ile Ala Gln Asn Asp Val Gly Leu Ser Glu Thr Ser Pro
 3905 23910 23915 23920
 Ala Ser Glu Pro Val Val Cys Lys Asp Pro Phe Asp Lys Pro Ser Gln
 23925 23930 23935
 Pro Gly Glu Leu Glu Ile Leu Ser Ile Ser Lys Asp Ser Val Thr Leu
 23940 23945 23950
 Gln Trp Glu Lys Pro Glu Cys Asp Gly Gly Lys Glu Ile Leu Gly Tyr
 23955 23960 23965
 Trp Val Glu Tyr Arg Gln Ser Gly Asp Ser Ala Trp Lys Lys Ser Asn
 23970 23975 23980 2
 Lys Glu Arg Ile Lys Asp Lys Gln Phe Thr Ile Gly Gly Leu Leu Glu
 3985 23990 23995 24000
 Ala Thr Glu Tyr Glu Phe Arg Val Phe Ala Glu Asn Glu Thr Gly Leu
 24005 24010 24015
 Ser Arg Pro Arg Arg Thr Ala Met Ser Ile Lys Thr Lys Leu Thr Ser
 24020 24025 24030
 Gly Glu Ala Pro Gly Ile Arg Lys Glu Met Lys Asp Val Thr Thr Lys
 24035 24040 24045
 Leu Gly Glu Ala Ala Gln Leu Ser Cys Gln Ile Val Gly Arg Pro Leu
 24050 24055 24060 2
 Pro Asp Ile Lys Trp Tyr Arg Phe Gly Lys Glu Leu Ile Gln Ser Arg
 4065 24070 24075 24080

Gly Glu Val Val Ser Ile Lys Ile Pro Phe Ser Gly Lys Pro Asp Pro
 4545 24550 24555 24560
 Val Ile Thr Trp Gln Lys Gly Gln Asp Leu Ile Asp Asn Asn Gly His
 24565 24570 24575
 Tyr Gln Val Ile Val Thr Arg Ser Phe Thr Ser Leu Val Phe Pro Asn
 24580 24585 24590
 Gly Val Glu Arg Lys Asp Ala Gly Phe Tyr Val Val Cys Ala Lys Asn
 24595 24600 24605
 Arg Phe Gly Ile Asp Gln Lys Thr Val Glu Leu Asp Val Ala Asp Val
 24610 24615 24620 2
 Pro Asp Pro Pro Arg Gly Val Lys Val Ser Asp Ala Ser Arg Asp Ser
 4625 24630 24635 24640
 Val Asn Leu Thr Trp Thr Glu Pro Ala Ser Asp Gly Gly Ser Lys Ile
 24645 24650 24655
 Thr Asn Tyr Ile Val Glu Lys Cys Ala Thr Thr Ala Glu Arg Trp Leu
 24660 24665 24670
 Arg Val Gly Gln Ala Arg Glu Thr Arg Tyr Thr Val Ile Asn Leu Phe
 24675 24680 24685
 Gly Lys Thr Ser Tyr Gln Phe Arg Val Ile Ala Glu Asn Lys Phe Gly
 24690 24695 24700 2
 Leu Ser Lys Pro Ser Glu Pro Ser Glu Pro Thr Ile Thr Lys Glu Asp
 4705 24710 24715 24720
 Lys Thr Arg Ala Met Asn Tyr Asp Glu Glu Val Asp Glu Thr Arg Glu
 24725 24730 24735
 Val Ser Met Thr Lys Ala Ser His Ser Ser Thr Lys Glu Leu Tyr Glu
 24740 24745 24750
 Lys Tyr Met Ile Ala Glu Asp Leu Gly Arg Gly Glu Phe Gly Ile Val
 24755 24760 24765
 His Arg Cys Val Glu Thr Ser Ser Lys Lys Thr Tyr Met Ala Lys Phe
 24770 24775 24780 2
 Val Lys Val Lys Gly Thr Asp Gln Val Leu Val Lys Lys Glu Ile Ser
 4785 24790 24795 24800
 Ile Leu Asn Ile Ala Arg His Arg Asn Ile Leu His Leu His Glu Ser
 24805 24810 24815
 Phe Glu Ser Met Glu Glu Leu Val Met Ile Phe Glu Phe Ile Ser Gly
 24820 24825 24830
 Leu Asp Ile Phe Glu Arg Ile Asn Thr Ser Ala Phe Glu Leu Asn Glu
 24835 24840 24845
 Arg Glu Ile Val Ser Tyr Val His Gln Val Cys Glu Ala Leu Gln Phe
 24850 24855 24860 2
 Leu His Ser His Asn Ile Gly His Phe Asp Ile Arg Pro Glu Asn Ile
 4865 24870 24875 24880
 Ile Tyr Gln Thr Arg Arg Ser Ser Thr Ile Lys Ile Ile Glu Phe Gly
 24885 24890 24895
 Gln Ala Arg Gln Leu Lys Pro Gly Asp Asn Phe Arg Leu Leu Phe Thr
 24900 24905 24910
 Ala Pro Glu Tyr Tyr Ala Pro Glu Val His Gln His Asp Val Val Ser
 24915 24920 24925
 Thr Ala Thr Asp Met Trp Ser Leu Gly Thr Leu Val Tyr Val Leu Leu
 24930 24935 24940 2
 Ser Gly Ile Asn Pro Phe Leu Ala Glu Thr Asn Gln Gln Ile Ile Glu
 4945 24950 24955 24960
 Asn Ile Met Asn Ala Glu Tyr Thr Phe Asp Glu Glu Ala Phe Lys Glu
 24965 24970 24975
 Ile Ser Ile Glu Ala Met Asp Phe Val Asp Arg Leu Leu Val Lys Glu
 24980 24985 24990
 Arg Lys Ser Arg Met Thr Ala Ser Glu Ala Leu Gln His Pro Trp Leu
 24995 25000 25005

Lys Gln Lys Ile Glu Arg Val Ser Thr Lys Val Ile Arg Thr Leu Lys 2
 25010 25015 25020
 His Arg Arg Tyr Tyr His Thr Leu Ile Lys Lys Asp Leu Asn Met Val
 5025 25030 25035 25040
 Val Ser Ala Ala Arg Ile Ser Cys Gly Gly Ala Ile Arg Ser Gln Lys
 25045 25050 25055
 Gly Val Ser Val Ala Lys Val Lys Val Ala Ser Ile Glu Ile Gly Pro
 25060 25065 25070
 Val Ser Gly Gln Ile Met His Ala Val Gly Glu Glu Gly Gly His Val
 25075 25080 25085
 Lys Tyr Val Cys Lys Ile Glu Asn Tyr Asp Gln Ser Thr Gln Val Thr
 25090 25095 25100 2
 Trp Tyr Phe Gly Val Arg Gln Leu Glu Asn Ser Glu Lys Tyr Glu Ile
 5105 25110 25115 25120
 Thr Tyr Glu Asp Gly Val Ala Ile Leu Tyr Val Lys Asp Ile Thr Lys
 25125 25130 25135
 Leu Asp Asp Gly Thr Tyr Arg Cys Lys Val Val Asn Asp Tyr Gly Glu
 25140 25145 25150
 Asp Ser Ser Tyr Ala Glu Leu Phe Val Lys Gly Val Arg Glu Val Tyr
 25155 25160 25165
 Asp Tyr Tyr Cys Arg Arg Thr Met Lys Lys Ile Lys Arg Arg Thr Asp
 25170 25175 25180 2
 Thr Met Arg Leu Leu Glu Arg Pro Pro Glu Phe Thr Leu Pro Leu Tyr
 5185 25190 25195 25200
 Asn Lys Thr Ala Tyr Val Gly Glu Asn Val Arg Phe Gly Val Thr Ile
 25205 25210 25215
 Thr Val His Pro Glu Pro His Val Thr Trp Tyr Lys Ser Gly Gln Lys
 25220 25225 25230
 Ile Lys Pro Gly Asp Asn Asp Lys Lys Tyr Thr Phe Glu Ser Asp Lys
 25235 25240 25245
 Gly Leu Tyr Gln Leu Thr Ile Asn Ser Val Thr Thr Asp Asp Ala
 25250 25255 25260 2
 Glu Tyr Thr Val Val Ala Arg Asn Lys Tyr Gly Glu Asp Ser Cys Lys
 5265 25270 25275 25280
 Ala Lys Leu Thr Val Thr Leu His Pro Pro Pro Thr Asp Ser Thr Leu
 25285 25290 25295
 Arg Pro Met Phe Lys Arg Leu Leu Ala Asn Ala Glu Cys Gln Glu Gly
 25300 25305 25310
 Gln Ser Val Cys Phe Glu Ile Arg Val Ser Gly Ile Pro Pro Pro Thr
 25315 25320 25325
 Leu Lys Trp Glu Lys Asp Gly Gln Pro Leu Ser Leu Gly Pro Asn Ile
 25330 25335 25340 2
 Glu Ile Ile His Glu Gly Leu Asp Tyr Tyr Ala Leu His Ile Arg Asp
 5345 25350 25355 25360
 Thr Leu Pro Glu Asp Thr Gly Tyr Tyr Arg Val Thr Ala Thr Asn Thr
 25365 25370 25375
 Ala Gly Ser Thr Ser Cys Gln Ala His Leu Gln Val Glu Arg Leu Arg
 25380 25385 25390
 Tyr Lys Lys Gln Glu Phe Lys Ser Lys Glu Glu His Glu Arg His Val
 25395 25400 25405
 Gln Lys Gln Ile Asp Lys Thr Leu Arg Met Ala Glu Ile Leu Ser Gly
 25410 25415 25420 2
 Thr Glu Ser Val Pro Leu Thr Gln Val Ala Lys Glu Ala Leu Arg Glu
 5425 25430 25435 25440
 Ala Ala Val Leu Tyr Lys Pro Ala Val Ser Thr Lys Thr Val Lys Gly
 25445 25450 25455
 Glu Phe Arg Leu Glu Ile Glu Glu Lys Lys Glu Glu Arg Lys Leu Arg
 25460 25465 25470

Met Pro Tyr Asp Val Pro Glu Pro Arg Lys Tyr Lys Gln Thr Thr Ile
 25475 25480 25485
 Glu Glu Asp Gln Arg Ile Lys Gln Phe Val Pro Met Ser Asp Met Lys
 25490 25495 25500 2
 Trp Tyr Lys Lys Ile Arg Asp Gln Tyr Glu Met Pro Gly Lys Leu Asp
 5505 25510 25515 25520
 Arg Val Val Gln Lys Arg Pro Lys Arg Ile Arg Leu Ser Arg Trp Glu
 25525 25530 25535
 Gln Phe Tyr Val Met Pro Leu Pro Arg Ile Thr Asp Gln Tyr Arg Pro
 25540 25545 25550
 Lys Trp Arg Ile Pro Lys Leu Ser Gln Asp Asp Leu Glu Ile Val Arg
 25555 25560 25565
 Pro Ala Arg Arg Arg Thr Pro Ser Pro Asp Tyr Asp Phe Tyr Tyr Arg
 25570 25575 25580 2
 Pro Arg Arg Arg Ser Leu Gly Asp Ile Ser Asp Glu Glu Leu Leu Leu
 5585 25590 25595 25600
 Pro Ile Asp Asp Tyr Leu Ala Met Lys Arg Thr Glu Glu Glu Arg Leu
 25605 25610 25615
 Arg Leu Glu Glu Glu Leu Glu Leu Gly Phe Ser Ala Ser Pro Pro Ser
 25620 25625 25630
 Arg Ser Pro Pro His Phe Glu Leu Ser Ser Leu Arg Tyr Ser Ser Pro
 25635 25640 25645
 Gln Ala His Val Lys Val Glu Glu Thr Arg Lys Asn Phe Arg Tyr Ser
 25650 25655 25660 2
 Thr Tyr His Ile Pro Thr Lys Ala Glu Ala Ser Thr Ser Tyr Ala Glu
 5665 25670 25675 25680
 Leu Arg Glu Arg His Ala Gln Ala Ala Tyr Arg Gln Pro Lys Gln Arg
 25685 25690 25695
 Gln Arg Ile Met Ala Glu Arg Glu Asp Glu Glu Leu Leu Arg Pro Val
 25700 25705 25710
 Thr Thr Thr Gln His Leu Ser Glu Tyr Lys Ser Glu Leu Asp Phe Met
 25715 25720 25725
 Ser Lys Glu Glu Lys Ser Arg Lys Lys Ser Arg Arg Gln Arg Glu Val
 25730 25735 25740 2
 Thr Glu Ile Thr Glu Ile Glu Glu Glu Tyr Glu Ile Ser Lys His Ala
 5745 25750 25755 25760
 Gln Arg Glu Ser Ser Ser Ser Ala Ser Arg Leu Leu Arg Arg Arg Arg
 25765 25770 25775
 Ser Leu Ser Pro Thr Tyr Ile Glu Leu Met Arg Pro Val Ser Glu Leu
 25780 25785 25790
 Ile Arg Ser Arg Pro Gln Pro Ala Glu Glu Tyr Glu Asp Asp Thr Glu
 25795 25800 25805
 Arg Arg Ser Pro Thr Pro Glu Arg Thr Arg Pro Arg Ser Pro Ser Pro
 25810 25815 25820 2
 Val Ser Ser Glu Arg Ser Leu Ser Arg Phe Glu Arg Ser Ala Arg Phe
 5825 25830 25835 25840
 Asp Ile Phe Ser Arg Tyr Glu Ser Met Lys Ala Ala Leu Lys Thr Gln
 25845 25850 25855
 Lys Thr Ser Glu Arg Lys Tyr Glu Val Leu Ser Gln Gln Pro Phe Thr
 25860 25865 25870
 Leu Asp His Ala Pro Arg Ile Thr Leu Arg Met Arg Ser His Arg Val
 25875 25880 25885
 Pro Cys Gly Gln Asn Thr Arg Phe Ile Leu Asn Val Gln Ser Lys Pro
 25890 25895 25900 2
 Thr Ala Glu Val Lys Trp Tyr His Asn Gly Val Glu Leu Gln Glu Ser
 5905 25910 25915 25920
 Ser Lys Ile His Tyr Thr Asn Thr Ser Gly Val Leu Thr Leu Glu Ile
 25925 25930 25935

Tyr Lys Leu Ser Glu Asp Lys Gly Gly Phe Phe Leu Glu Ile His Lys
26405 26410 26415
Thr Asp Thr Ser Asp Ser Gly Leu Tyr Thr Cys Thr Val Lys Asn Ser
26420 26425 26430
Ala Gly Ser Val Ser Ser Ser Cys Lys Leu Thr Ile Lys Ala Ile Lys
26435 26440 26445
Asp Thr Glu Ala Gln Lys Val Ser Thr Gln Lys Thr Ser Glu Ile Thr
26450 26455 26460 2
Pro Gln Lys Lys Ala Val Val Gln Glu Glu Ile Ser Gln Lys Ala Leu
6465 26470 26475 26480
Arg Ser Glu Glu Ile Lys Met Ser Glu Ala Lys Ser Gln Glu Lys Leu
26485 26490 26495
Ala Leu Lys Glu Glu Ala Ser Lys Val Leu Ile Ser Glu Glu Val Lys
26500 26505 26510
Lys Ser Ala Ala Thr Ser Leu Glu Lys Ser Ile Val His Glu Glu Ile
26515 26520 26525
Thr Lys Thr Ser Gln Ala Ser Glu Glu Val Arg Thr His Ala Glu Ile
26530 26535 26540 2
Lys Ala Phe Ser Thr Gln Met Ser Ile Asn Glu Gly Gln Arg Leu Val
6545 26550 26555 26560
Leu Lys Ala Asn Ile Ala Gly Ala Thr Asp Val Lys Trp Val Leu Asn
26565 26570 26575
Gly Val Glu Leu Thr Asn Ser Glu Glu Tyr Arg Tyr Gly Val Ser Gly
26580 26585 26590
Ser Asp Gln Thr Leu Thr Ile Lys Gln Ala Ser His Arg Asp Glu Gly
26595 26600 26605
Ile Leu Thr Cys Ile Ser Lys Thr Lys Glu Gly Ile Val Lys Cys Gln
26610 26615 26620 2
Tyr Asp Leu Thr Leu Ser Lys Glu Leu Ser Asp Ala Pro Ala Phe Ile
6625 26630 26635 26640
Ser Gln Pro Arg Ser Gln Asn Ile Asn Glu Gly Gln Asn Val Leu Phe
26645 26650 26655
Thr Cys Glu Ile Ser Gly Glu Pro Ser Pro Glu Ile Glu Trp Phe Lys
26660 26665 26670
Asn Asn Leu Pro Ile Ser Ile Ser Ser Asn Val Ser Ile Ser Arg Ser
26675 26680 26685
Arg Asn Val Tyr Ser Leu Glu Ile Arg Asn Ala Ser Val Ser Asp Ser
26690 26695 26700 2
Gly Lys Tyr Thr Ile Lys Ala Lys Asn Phe Arg Gly Gln Cys Ser Ala
6705 26710 26715 26720
Thr Ala Ser Leu Met Val Leu Pro Leu Val Glu Glu Pro Ser Arg Glu
26725 26730 26735
Val Val Leu Arg Thr Ser Gly Asp Thr Ser Leu Gln Gly Ser Phe Ser
26740 26745 26750
Ser Gln Ser Val Gln Met Ser Ala Ser Lys Gln Glu Ala Ser Phe Ser
26755 26760 26765
Ser Phe Ser Ser Ser Ser Ala Ser Ser Met Thr Glu Met Lys Phe Ala
26770 26775 26780 2
Ser Met Ser Ala Gln Ser Met Ser Ser Met Gln Glu Ser Phe Val Glu
6785 26790 26795 26800
Met Ser Ser Ser Ser Phe Met Gly Ile Ser Asn Met Thr Gln Leu Glu
26805 26810 26815
Ser Ser Thr Ser Lys Met Leu Lys Ala Gly Ile Arg Gly Ile Pro Pro
26820 26825 26830
Lys Ile Glu Ala Leu Pro Ser Asp Ile Ser Ile Asp Glu Gly Lys Val
26835 26840 26845
Leu Thr Val Ala Cys Ala Phe Thr Gly Glu Pro Thr Pro Glu Val Thr
26850 26855 26860 2

Trp Ser Cys Gly Gly Arg Lys Ile His Ser Gln Glu Gln Gly Arg Phe
 6865 26870 26875 26880
 His Ile Glu Asn Thr Asp Asp Leu Thr Thr Leu Ile Ile Met Asp Val
 26885 26890 26895
 Gln Lys Gln Asp Gly Gly Leu Tyr Thr Leu Ser Leu Gly Asn Glu Phe
 26900 26905 26910
 Gly Ser Asp Ser Ala Thr Val Asn Ile His Ile Arg Ser Ile
 26915 26920 26925

<210> 3
 <211> 21
 <212> DNA
 <213> Danio rerio

<400> 3
 agggacactc agagaccata g 21

<210> 4
 <211> 40
 <212> DNA
 <213> Danio rerio

<400> 4
 taatacgact cactataggg gtctgaggat actgccttc 40

<210> 5
 <211> 27
 <212> DNA
 <213> Danio rerio

<400> 5
 tttgaaccac ttgaaggtca caccagg 27

<210> 6
 <211> 30
 <212> DNA
 <213> Danio rerio

<400> 6
 gctaagaatg actatggagt tgccacaagc 30

<210> 7
 <211> 27
 <212> DNA
 <213> Danio rerio

<400> 7
 tgaaccactt gaaggtcaca ccaggag 27

<210> 8
 <211> 41
 <212> DNA
 <213> Danio rerio

<400> 8

